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THE INDUSTRIAL DEVELOPMENT OF COLOMBIA

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EXPLANATORY NOTE

Resolution 250 (XI) of 14 May 1965, adopted by the Economic Commission for Latin America (ECLA) at its eleventh session, requested the Latin American Governments "to prepare national studies on the present status of their respective industrialization processes for presentation at the regional symposium". With a view to facilitating the task of the officials responsible for the national studies, the ECLA secretariat prepared a guide, which was also intended to ensure a certain amount of uniformity in the presentation of the studies with due regard for the specific conditions obtaining in each country.

Studies of the industrial development of fourteen countries were submitted to the Latin American Symposium on Industrial Development, held in Santiago, Chile, from 14 to 25 March 1966, under the joint sponsorship of ECLA and the Centre for Industrial Development, and the Symposium requested ECLA to ask the Latin American Governments "to revise, complete and bring up to date the papers presented to the Symposium".

The work of editing, revising and expanding the national monographs was completed by the end of 1966 and furthermore, two new studies were prepared. The ECLA secretariat attempted, as far as possible, to standardize the presentation of the reports, in order to permit comparison of the experience of the different countries with regard to specific problems, particularly in the field of industrial policy.

The national studies on industrial development, to be presented to the International Symposium relate, in alphabetical order, to the following countries: Argentina, Bolivia, Brazil, Central America, Chile, Colombia, Cuba, Ecuador, Guyana, Mexico, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay and Venezuela.

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/Chapter I

Chapter I

HISTORICAL BACKGROUND

Until the decade beginning in 1920, Colombia's incipient industrialization was weak and backward. In 1925, manufacturing's contribution to the domestic product barely amounted to 10 per cent, and there was little diversification. In the forefront were the food industries engaged in simple processing of agricultural products. These were in large part coffee hulling mills, and sugar mills and refineries. Tobacco manufacture was significant, but textiles, beverages, leather and leather manufactures, and cement, were little developed. Production in the chemical industry was limited to candles, matches and soap, while metal-transforming amounted at most to repair and maintenance.

The lag in industrialization in Colombia until 1925 is explained by factors such as the low purchasing power abroad, limiting the acquisition of foreign equipment and materials; difficulties of the topography, hindering the integration of the market, and the low per capita income of the population.

Beginning in 1925, several bases of industrial activity were established, public investments were made, mainly in communication routes and in power, and foreign capital began to enter the country, especially in mining and in services. Imported equipment, bought with the foreign exchange, although underutilized, allowed domestic production to take place when the 1932 depression made it impossible to buy many manufactured goods abroad. The crisis gave impetus to manufacturing production, and the newly existing basic communication routes and imported equipment aided this trend. The customs tariff put into effect in 1931 had protectionist as well as fiscal characteristics, although it was limited to the setting of specific charges whose effect diminished with the later rise in prices. In 1951, the tariff system was altered and the ad valorem charge introduced.

/Although manufacturing

Although manufacturing increased during the thirties, its contribution to the total gross product did not change substantially and was estimated at 13 per cent for 1937-1939. No important changes took place in the structure of production, the contribution of foods and tobacco remaining considerable, while that of textiles and cement rose. During this decade, the quantitative control over imports reduced importation of capital goods.

Importation faced new difficulties with the advent of the second world war, although this time not for lack of foreign exchange. The impossibility of obtaining foreign supplies stimulated manufacturing but the capital goods needed to carry forward industrialization were unobtainable at the time and the foreign exchange resulting from exports was accumulated. The industries producing beverages, textiles and leather and textile products, continued to grow. In the latter branch, large establishments began production on a scale far beyond the other small and artisan industry.

In the early forties, the Colombian Government decided to take part in industrialization, not merely indirectly, by investment in company capital or giving customs protection or related stimuli or credits, but also by direct investment, in most cases in co-operation with domestic capital. The Institute of Industrial Development (Instituto de Fomento Industrial) was set up to encourage basic industries and industries using domestic raw materials which private enterprise could not develop adequately. The principal industries chosen were steel making, soda and allied industries, and chemicals in general.

From 1946 on, significant changes appear in the composition of Colombian industrial production. At the end of the war, installed capacity in many branches of industry was relatively antiquated, but during the war period new initiatives were begun. The expansion of industrial capacity was essential to further progress, and in the first years following the war, imports of capital goods rose appreciably, especially in manufacturing.

There followed a rapid growth and diversification of new industrial items. The chemical industry extended beyond the production of soap, candles, matches etc., to many new activities, in particular intermediate goods and pharmaceutical products. The cement and asbestos-cement products industries grew rapidly, the glass industry more slowly. Progress was marked in the petroleum and coal products industries, and even more so in those of paper and paper manufactures. The rubber industry developed rapidly, beginning from almost nothing before the war. Steps were taken to set up a steel industry, and metal-transforming progressed, although remaining out-of-date.

Since information regarding industrial development is more plentiful and detailed from the fifties on, the analysis presented in the next chapter will begin at this point.

/Chapter II

Chapter II

RELATIVE IMPORTANCE, STRUCTURE AND CHARACTERISTICS OF MANUFACTURING INDUSTRY

1. Production

The share of manufacturing in the aggregate domestic product has been increasing, from 15 per cent in 1950 it rose to 17.4 per cent in 1961, reaching 18.7 per cent in 1963 (see table 1). Part of the sector's dynamic growth is the result of a rapid rise in the demand for manufactured articles, but perhaps the real spur to industrialization has been the possibility of substituting imports, especially of consumer and intermediate goods. Foreign demand for manufactured products has not yet offered much stimulus to industrial growth.

Table 1

COLOMBIA: TOTAL GROSS DOMESTIC PRODUCT AND MANUFACTURING INDUSTRY, AT MARKET PRICES

(Millions of 1958 pesos)

Branches of production	1953	1956	1959	1960	1961	1962	1963
Total economy	17 081.0	19 745.7	22 128.6	23 041.8	24 179.0	25 396.0	26 238.0
Manufacturing industry (total)	2 624.6	3 288.1	3 888.8	4 128.9	4 375.8	4 676.6	4 898.6
Manufacturing industry (excluding coffee hulling)	2 611.9	3 271.6	3 870.8	4 110.1	4 355.5	4 654.4	4 877.4
Factory industry (total)	1 990.9	2 586.2	3 124.5	3 340.9	3 560.3	3 833.7	4 024.5
Factory industry (excluding coffee hulling)	1 978.2	2 569.7	3 106.5	3 322.1	3 540.0	3 811.5	4 003.3
Small artisan industry	633.7	701.9	764.3	788.0	815.5	842.9	874.1
Percentage contribution to the total GDP:							
1) Of manufacturing industry (total)	15.4	16.7	17.6	17.9	18.1	18.4	18.7
2) Of manufacturing industry (excluding hulling)	15.3	16.6	17.5	17.8	18.0	18.3	18.6
3) Of factory industry (total)	11.7	13.1	14.1	14.5	14.7	15.1	15.3
4) Of small and artisan industry	3.7	3.6	3.5	3.4	3.4	3.3	3.3

Source: Bank of Colombia (Banco de la República), production volume index, and Administrative Planning Department (Departamento Administrativo de Planeación - DAP), Overall Economic Studies Division (Estudios Económicos Globales).

/The rate

The rate of industrialization, measured as the ratio of the growth rate for the gross factory product to that of the domestic product, was 1.4 during the fifties and 1.5 from 1959-1962. The figure remained at 1.5 for 1962-1963, but in this case there was an appreciable fall in the growth rates for factory industry (5 per cent) as for the whole economy (3.3 per cent).

The group of industries most typically producing consumer or traditional goods (foods, beverages, tobacco, textiles, footwear and clothing, and printing) leads Colombian factory production, as table 2 shows, a characteristic common to countries in the early stages of industrialization. However in recent years the structure has been changing, most rapid advance being in those lines which require more technical complexity and especially in those producing intermediate goods, as in the chemical, metallurgical and metal-transforming industries. As a result, the contribution of the consumer goods industry to total factory production has fallen from 73 per cent in 1950 to 60 per cent in 1959, and 58 per cent in 1963.

The importance of artisan activity in manufacturing also stands out, as well as its slow absorption by factory industry. In 1950 the artisan sector gave rise to 26 per cent of manufactures, in 1959, 20 per cent and in 1963, 18 per cent.

Colombia's industrialization, although under way, might well have been more rapid had it not met with obstacles arising from an unfavourable balance of payments. Restrictions on imports have hindered the buying of equipment and the supply of raw materials, and the rise in customs charges has increased purchasing prices. To control inflationary pressures, expansion of the means of payment has been restricted in recent years. Deposits have also been set up for imports with a view to reducing pressure on the balance of payments. These measures have cut down available credit for industry and made it more costly. The effect is most clearly seen in small and medium-size enterprises where working capital is limited.

The bargaining power of the trade unions varies greatly, not only in the branches of production but also according to the company concerned, but generally social charges have been growing rapidly, raising the cost of labour and causing industry to look for substitutes, which in turn reduces growth.

/Table 2

Table 2

COLOMBIA: STRUCTURE OF MANUFACTURING PRODUCTION a/

(Percentage composition)

		1953	1956	1959	1960	1963
20	Foods (including hulling)	13.3	13.3	12.0	11.7	11.0
20	Foods (excluding hulling)	12.7	12.6	11.4	11.2	10.5
21	Beverages	19.5	15.1	15.2	14.9	14.4
22	Tobacco	9.4	8.0	7.2	7.1	6.5
23	Textiles	16.8	17.2	17.0	17.3	17.1
24	Footwear and wearing apparel	5.3	5.9	5.7	5.9	6.3
25/26	Wood, cork, and furniture made from wood	1.8	1.9	1.9	1.8	1.5
27	Paper and paper products	1.4	1.5	1.6	1.7	2.0
28	Printing and allied industries	2.9	3.3	2.5	2.3	3.2
29	Leather except footwear	1.7	1.6	1.2	1.2	1.3
30	Rubber and rubber products	1.9	2.5	2.3	2.4	2.3
31	Chemicals	7.4	8.0	9.0	8.8	8.5
32	Products of petroleum and coal	2.4	2.6	3.4	3.5	3.2
33	Non-metallic minerals	6.7	7.0	6.5	5.9	6.0
34	Basic minerals	0.5	3.5	3.3	4.2	4.3
35/38	Metal-transforming and metallurgy	4.9	6.3	9.2	9.7	11.3
39	Miscellaneous	3.7	2.4	2.0	1.5	1.1
	Total factory industry (including coffee hulling)	100.0	100.0	100.0	100.0	100.0
	Total factory industry (excluding coffee hulling)	99.4	99.4	99.4	99.4	99.5
	Total for group producing mainly consumer goods (including hulling)	67.3	62.7	59.7	59.2	58.4
	Total for group producing mainly consumer goods (excluding hulling)	66.6	62.1	59.1	59.0	58.2
	Total for group producing mainly intermediate capital goods and fuels	32.7	37.3	40.3	40.8	41.6
	Factory industry (including coffee hulling)	75.9	78.7	80.3	80.9	82.2
	Factory industry (excluding coffee hulling)	75.4	78.2	79.9	80.5	81.7
	Artisan industry	24.1	21.3	19.7	19.1	17.8
	Manufacturing industry	100.0	100.0	100.0	100.0	100.0

Source: DAP, Overall Economic Studies.

a/ In terms of gross product at constant market prices.

/2. Employment

2. Employment

The number of new jobs created in factory industry is small in relation to the total work force (5.3 per cent in 1963) and continues to diminish. The annual growth rate in employment, as deduced from the figures in table 3, was 4.8 per cent from 1953 to 1959, and 3 per cent form 1959 to 1963.

The annual growth rate in factory employment is less among the traditional industries (foods, beverages, tobacco, textiles, footwear and clothing, and printing) than in those producing mainly intermediate goods, fuels and some capital goods. The figures were 1.9 per cent and 8.3 per cent respectively from 1953 to 1959, and 1.6 per cent and 5 per cent from 1959 to 1963. Although industries dynamic in the growth of their product are usually also a stimulus to employment, their effect on total employment is not important because they often employ a limited number of persons. In 1953, 64.5 per cent of those involved in factory activities were in the traditional industries, in 1959 the figure was 56.6 per cent, and in 1963, 53.3 per cent.

In some industries, such as tobacco, products of petroleum and coal, employment has undergone a slow but continuous decline while the gross product has risen at a normal rate. Apparently the utilization of capital is continually improving, while manpower is being substituted by equipment.

The limited ability of the factory industries to generate employment arises from various factors including the choice of techniques which, in certain processes, is rigidly conditioned by the limited possibility of substituting labour for equipment; by faulty production factors hindering free mobility of the market; by the discrepancy between attainable production and what the market can absorb; by demand structure, etc. In addition, the criteria of efficiency and low cost are more important then the effect on unemployment under the competitive operating conditions of the export market. The preferred use of capital over labour may in some cases reflect the regular rise of labour costs in terms of social charges, a result of the trade unions' increased bargaining power rather than of new legislation.

/Table 3

Table 3

COLOMBIA: NUMBER EMPLOYED IN FACTORY INDUSTRY, BY BRANCHES OF ACTIVITY

Products		1953	1956	1959	1960	1963
20	Foods (including hulling)	34 579	34 399	38 005	38 894	40 416
21	Beverages	11 041	11 936	14 304	14 854	16 524
22	Tobacco	6 612	5 450	4 622	4 328	3 905
23	Textiles	36 849	36 498	42 403	44 237	45 045
24	Footwear and clothing	28 625	29 116	31 214	29 683	32 257
25/26	Wood and furniture made from wood	8 354	10 724	11 418	10 915	11 099
27	Paper	1 978	2 968	3 857	3 979	5 550
28	Printing	7 833	8 711	10 111	10 887	11 455
29	Leather	4 019	4 295	4 935	4 465	4 549
30	Rubber	2 848	4 781	5 186	5 805	7 043
31	Chemicals	9 980	11 184	15 537	16 458	18 351
32	Products of petroleum and coal	1 588	2 027	2 096	2 074	2 055
33	Non-metallic minerals	17 860	18 968	22 107	22 605	25 314
34/38	Metal-transforming and metallurgy	17 100	27 313	37 103	38 910	49 062
39	Miscellaneous	2 950	3 645	5 642	6 322	7 895
	Total factory industry (including hulling)	192 216	212 015	248 540	254 416	280 520

Source: National Administrative Department of Statistics (Departamento Administrativo Nacional de Estadística - DANE), prepared by Overall Economic Studies Division.

In the factory industries, the gross annual product per person employed continued to grow between 1960 and 1963 at the same annual rate of 3 per cent as in the period 1950-1960. This figure is approximately three times greater than that for the economy as a whole and about eight times greater than the figure for artisan industry.

3. Foreign trade

(a) Imports

The proportion of imports of manufactured goods in relation to total imports is quite high (see table 4). On the other hand, the proportion of such exports to the total value of exports is very low, although it was growing slowly until 1962, later to diminish in 1963 and 1964.

Table 4

COLOMBIA: IMPORTS AND EXPORTS OF MANUFACTURED GOODS a/

(Millions of dollars)

Year	Imports			Exports		
	Total	Manufactured goods	Percentage of manufactured goods	Total	Manufactured goods	Percentage of manufactured goods
1957	482.6	420.4	87.1	511.1	12.8	2.5
1958	399.1	344.5	86.1	460.7	17.1	3.7
1959	415.6	373.4	89.8	474.3	17.1	3.6
1960	518.6	493.4	95.1	464.2	17.4	6.5
1961	557.1	521.4	93.6	434.8	25.9	6.0
1962	540.4	501.9	92.9	463.5	35.2	7.6
1963	506.0	477.8	94.4	446.6	33.6	7.5
1964	586.3	469.3 b/	80.0	548.2	39.1	7.1

Source: DANE, Anuarios de Comercio Exterior; DAP.

a/ 1) Does not include unregistered trade.
2) Does not include donations, 10.2 million dollars in 1963.

b/ Most important imports.

/The fluctuations

The fluctuations in imports of manufactured goods closely follow the changing level of total imports; rising from 1959 to 1961, they fell in 1963 and 1964. In 1963, the value of these imports was 6.4 per cent less than in 1962 and 9.2 per cent less than in 1961. All indications are that the value of such imports for 1964 surpassed that of previous years since the most important amounts are included in table 4, 117 million dollars of the total remaining to be classified, of which an estimated 70 per cent corresponds to manufactured products. Thus the amount would be 15.3 per cent higher than in 1963. Total imports for 1964 also exceeded those of previous years. The increase over 1963 was 80.3 million dollars, or 15.9 per cent.

During the three-year period 1961-1963, the country faced balance of payment difficulties and foreign purchasing power fell. Orders abroad had to be restricted, especially those for capital goods which could be postponed. Imports of raw materials and intermediate goods have been increasing since 1958 (see table 5), but imports of capital goods in 1962 and 1963 were lower than in 1961 by 7.7 per cent and 13.2 per cent, respectively. In 1964, however, they rose 6 per cent over the 1961 level. Imports of consumer goods fell from 60.6 million dollars in 1961 to an annual average of 40.5 million in the period 1963-1964 (see table 5).

Import substitution has filled practically all possibilities in consumer goods but continues slowly as regards intermediate and capital goods owing to technical difficulties and the limited market.

Colombian industry's dependence on foreign supply of raw materials and intermediate goods is evident from the total imports of these, 51 per cent in 1963 and 50 per cent in 1964.

The totals for raw materials and intermediate goods of domestic and foreign origin used during 1958-1963 by each of the branches of manufacturing industry appear in table A.1 of the Statistical Annex. A limited substitution of imported inputs can be seen in the beverages, textiles, wearing apparel, wood and furniture, leather and petroleum products industries. Percentagewise, the figures show a slow reduction in total inputs from foreign sources, from 23.3 per cent in 1959, they fell to 20.5 per cent in 1963.

/Table 5

Table 5

COLOMBIA: STRUCTURE OF IMPORTS BY TYPE OF GOODS

(Millions of dollars)

	1958		1959		1960		1961		1962		1963		1964	
	Value	Percentage	Value	Percentage	Value	Percentage	Value	Percentage	Value	Percentage	Value	Percentage	Value	Percentage
Total imports	399.1	100.0	415.6	100.0	518.6	100.0	557.1	100.0	540.4	100.0	506.0	100.0	586.3	100.0
Consumer goods	42.6	10.7	38.0	9.1	45.2	8.7	60.6	10.9	49.8	9.2	41.0	8.1	40.0	6.8
Raw materials and intermediate goods	226.3	56.7	224.6	54.0	253.2	48.8	262.7	47.2	269.6	49.9	258.0	51.0	293.3	50.0
Agricultural machinery	17.9	4.5	22.1	5.3	33.6	6.5	33.1	5.9	30.9	5.7	22.7	4.5	33.0	5.6
Industrial machinery	69.3	17.4	62.5	15.0	102.2	19.7	108.7	19.5	119.1	22.0	106.3	21.0	127.3	21.7
Transport and communications machinery and equipment	42.8	10.7	62.4	15.0	79.8	15.4	83.6	15.0	58.1	10.8	66.7	13.2	78.6	13.4
Total capital goods	130.0	32.6	147.0	35.4	215.6	41.6	225.4	40.5	208.1	38.5	195.7	38.7	238.9	40.7
Unclassified	0.2	0.1	6.0	1.4	1.1	0.2	3.7	0.7	1.7	0.3	1.3	0.2	5.4	1.0
Donations	-	-	-	-	3.5	0.7	4.7	0.8	11.2	2.1	10.0	2.0	8.7	1.5

Source: DANE, Anuarios de Comercio Exterior; DAP.

/Table A.2

Table A.2 shows that the value of imports of intermediate goods and raw materials rose by 64 per cent from 1959 to 1962, clearly indicating the dependence of industry on imported inputs.

In table 6, showing the main imports of manufactured goods according to industrial group of origin, important reductions can be seen in the branches of pulp and paper, metal products, and also of non-electrical machinery and parts, although the latter rose in 1964. The main increases are in the textiles, chemicals, basic metals and transport equipment industries.

In tables A.3, A.4 and A.5, imports are classified according to their source in traditional or dynamic industries. Although both groups show a diminution, the structure of each shows that while in the traditional group this resulted partly from import substitution, in the dynamic group the cause was mainly restriction of imports, although some substitution was involved. The high quota of imports corresponding to the dynamic industries shows that these are far short of their full development.

(b) Exports

Table 7 gives details of manufacturing exports by branches of production. Exports in 1963 fell 4.7 per cent below the preceding year, those branches most affected being foods, petroleum products and coal. These recovered in 1964, as did textiles which rose an average of 72 per cent above the 1962-1963 level. Total exports rose favourably in 1964 to 16.5 per cent over the 1963 level.

The main export manufactures for 1962, 1963 and 1964 are given in table A.6. A fall in sugar is evident in 1963 and 1964, and in silk yarns and threads, cement and fuel oil in 1963; gains occurred in cotton cloths, woods, leather, etc., in 1963, and in silk yarns and threads in 1964.

Transactions with each of the countries of the Latin American Free-Trade Zone (ALALC) showed a negative balance (see table 8). While imports were 21.3 and 33.1 million dollars for 1963 and 1964, exports amounted only to 6 and 11 million dollars, creating deficits of 15.3 and 22 million dollars respectively.

/Table 6

Table 6

COLOMBIA: IMPORTS OF MANUFACTURED PRODUCTS BY BRANCHES OF ORIGIN

(c.i.f. value in millions of dollars)

Products	1957	1958	1959	1960	1961 a/	1962	1963	1964 a/
Food	7.8	7.4	6.2	4.9	9.1 b/	1.7	1.3	1.1
Beverages	7.2	5.8	5.8	4.9	3.7	2.4	2.3	1.0
Tobacco	0.7	1.7	1.3	1.4	1.6	1.1	0.7	0.2
Textiles	12.5	6.2	13.7	19.8	19.1 c/	17.4 c/	18.6 c/	13.4 c/
Footwear and clothing	0.4	0.4	2.1	3.8	2.7	3.2	3.9	1.3
Wood, cork, and furniture made from wood	2.4	1.9	2.0	1.8	1.8	1.1	0.9	0.7
Pulp and paper	24.5	19.3	21.4	25.2	26.3	25.0	20.8	18.8
Printing	0.7	1.0	0.6	1.0	1.2	1.3	1.2	1.0
Leather	0.5	0.2	0.5	0.4	0.3	0.2	0.3	-
Rubber	3.6	4.2	8.4	13.3	9.9	12.4	12.9	14.4
Chemicals	89.9	77.0	80.4	94.0	98.8	104.7	109.1	97.9
Products of petroleum	25.9	12.4	11.5	13.5	16.3	16.7	12.7	11.1
Non-metallic mineral products d/	9.6	7.5	7.1	7.8	7.9	8.4	7.3	5.7
Basic metals	57.1	36.0	36.0	50.4	47.2	45.0	48.4	48.9
Metal products	22.0	20.0	17.8	18.5	19.2	20.0	14.4	21.9
Non-electrical machinery and parts	85.9	74.9	66.2	107.0	113.7	124.0	103.1	123.3
Electrical machinery and appliances	36.6	32.4	28.5	40.9	45.2	45.4	44.1	45.7
Transport equipment	19.6	26.0	56.4	75.5	87.1	60.4	67.1	54.5
Miscellaneous	13.5	10.2	7.5	9.3	10.3	11.5	8.7	8.4
Total	420.4	344.5	373.4	493.4	521.4	501.9	477.8	469.3

Source: DANE, Anuarios de Comercio Exterior, classified according to the International Standard Industrial Classification of the United Nations (ECLA).

a/ Most important imports only.

b/ Includes 5.5 million dollars in husked rice.

c/ Imports of combed wool and yarns were 12.7 million dollars in 1961, 9.2 million in 1962, 8.2 million in 1963 and 10.5 million in 1964.

d/ Includes processed natural bentonite, and crude asbestos calcined or ground.

/Table 7

Table 7

COLOMBIA: EXPORTS OF MANUFACTURED PRODUCTS a/

(f.o.b. value in thousands of dollars)

Industrial group of origin	1957	1958	1959	1960	1961	1962	1963	1964 b/
Foods (including sugar)	940.1	19.2	301.8	51.0	6 957.1	10 020.3	8 823.9	4 420.1
Beverages	-	0.7	-	0.9	0.7	22.7	81.5	2.6
Tobacco	13.9	16.9	43.9	22.0	21.2	19.3	42.4	-
Textiles	261.9	91.9	173.2	532.0	1 469.2	4 771.4	4 865.7	8 287.5
Footwear and clothing	231.6	61.7	45.2	34.6	35.7	59.7	125.5	-
Wood, cork, and furniture made from wood (including sawn wood)	896.5	1 272.6	1 361.2	2 223.1	2 509.5	2 452.2	3 545.8	4 460.1
Pulp and paper	3.8	12.7	18.2	10.2	11.7	9.3	55.2	-
Printing	20.1	13.8	32.1	22.0	82.8	268.6	353.6	393.5
Leather	942.4	920.2	860.2	400.3	1 062.5	2 210.2	2 736.1	4 329.1 c/
Rubber	13.1	11.6	2.6	28.8	36.3	54.4	61.6	1 072.5
Chemicals	785.4	1 031.5	928.9	1 400.3	1 767.9	1 670.9	2 048.9	3 091.9
Products of petroleum and coal	4 916.0	10 134.8	8 901.0	7 755.6	6 008.2	8 996.2	4 993.8	7 309.2
Non-metallic mineral products	966.3	1 251.7	2 348.3	2 037.9	2 503.4	2 203.1	2 010.0	2 938.1
Basic metals (including platinum)	2 053.5	1 411.8	723.6	613.5	1 483.7	1 041.2	1 630.4	1 538.6
Metal products	385.1	284.4	250.1	230.7	251.2	320.8	284.6	295.6
Non-electrical machinery and parts	634.7	387.1	922.8	1 848.8	1 322.7	879.2	1 362.8	882.7
Electrical machinery and apparatus	44.7	11.3	20.3	62.9	60.0	61.6	96.1	-
Transport equipment	73.4	80.9	18.7	16.8	252.7	40.8	206.8	-
Miscellaneous	183.7	119.1	121.9	80.4	96.8	153.6	270.3	123.0
Total	12 766.2	17 133.9	17 074.0	17 371.8	25 933.3	35 255.5	33 595.0	39 144.5

Source: DANE, Anuarios de Comercio Exterior, classified according to the International Standard Industrial Classification of the United Nations (ECLA).

a/ Excluding unregistered imports.

b/ Including furs.

c/ Most important exports.

Table 8

COLOMBIA: TRADE WITH THE LATIN AMERICAN FREE-TRADE ZONE

(Thousands of dollars)

Country	1961			1962			1963			1964		
	Imports	Exports	Balance	Imports	Exports	Balance	Imports	Exports	Balance	Imports	Exports	Balance
Mexico	1 002	219	-783	680	108	-572	3 096	218	-2 878	4 500	0.300	-4 200
Ecuador	6 270	1 217	-5 053	3 148	1 503	-1 645	4 422	2 665	-1 757	6 300	3 700	-2 600
Brazil	1 440	216	-1 224	46	15	-31	545	129	-416	1 900	-	-1 900
Uruguay	514	71	-443	2 046	143	-1 903	1 707	283	-1 424	6 300	0.500	-5 800
Argentina	363	180	-183	2 101	692	-1 409	8 657	624	-8 033	8 800	3 500	-5 300
Peru	522	3 903	3 381	742	3 842	3 100	1 883	1 780	-103	3 800	2 700	-1 100
Chile	298	297	-1	143	990	847	976	322	-654	1 500	0.300	-1 200
Total	10 409	6 103	-4 306	8 906	7 293	-1 613	21 286	6 021	-15 265	33 100	11 000	-22 000

Source: DANE, Anuarios de Comercio Exterior and Foreign Trade Bank S.A. (Banco del Comercio Exterior S.A.).

/Table 9

Table 9

COLOMBIA: INVESTMENT IN FIXED CAPITAL

(Millions of 1963 pesos)

	1957	1958	1959	1960	1961	1962
Gross domestic fixed capital formed in the year	5 572.4	5 987.9	7 025.8	7 594.6	7 651.4	7 163.0
Investment in factory industry	1 145.2	600.2	600.0	712.4	842.2	1 195.5
Investment in factory industry as percentage of total	20.6	10.0	8.5	9.4	11.0	16.7

Source: DAP, DANE and Bank of Colombia.

Unregistered exports in 1963 remained at 25 million dollars, as in 1962 although their structure changed, coffee and cattle raising, textiles falling. By 1964, such exports were estimated at 15 million dollars (see table A.7, Statistical Annex).

4. Industrial investment and financing in factory industry

Industrial investment's share in the formation of gross domestic fixed capital is shown in table 9.

Table 10 shows investment in fixed capital corresponding to the different sectors of manufacturing from 1957 to 1962, at 1963 prices. In the beverages industry (21), investment growth was regular. In textiles (23), amounts were generally larger but with some ups and downs. For pulp and paper (27), 1961 was a particularly important year, as were 1957 and 1962 for petroleum products (32). Investments in the latter and in beverages and textiles were important in the totals for 1957 and 1962, and the same was true for beverages, textiles, and pulp and paper in 1961.

/Table 10

Table 10

COLOMBIA: INDUSTRIAL INVESTMENT BY SECTORS, 1957-1962

(Millions of 1963 pesos)

Industrial sector	1957	1958	1959	1960	1961	1962	Total
20	92.7	77.1	78.6	105.8	104.9	131.3	591.4
21	56.3	39.9	69.7	71.5	43.1	46.8	327.3
22	22.0	16.3	9.2	9.3	3.7	1.7	62.2
23	256.1	129.0	84.3	164.9	136.5	120.9	891.7
24	18.8	11.6	15.5	14.3	17.3	28.6	106.1
25	11.9	6.6	5.1	5.4	18.4	8.6	56.0
26	2.7	2.3	2.5	2.4	4.4	4.4	18.7
27	29.8	17.1	15.5	8.0	168.9	23.4	262.7
28	9.4	12.4	12.7	22.9	27.7	23.3	108.4
29	14.2	10.5	4.8	5.6	10.6	11.8	57.5
30	24.7	9.2	17.3	13.2	33.5	20.7	118.6
31	79.9	54.9	68.7	85.8	74.8	55.0	419.1
32	315.1	12.4	9.2	6.9	5.3	446.8	795.7
33	56.8	52.8	62.0	48.0	46.5	60.0	326.1
34	63.2	56.0	41.1	17.2	4.5	8.1	190.1
35	26.6	25.4	32.2	47.5	66.9	78.3	276.9
36	7.8	6.3	17.4	7.7	8.3	14.6	62.6
37	31.1	21.1	27.3	33.0	32.4	54.0	198.9
38	14.4	29.3	14.0	19.0	15.8	31.1	123.6
39	11.7	10.0	11.8	24.0	18.2	26.1	101.8
Total	1 145.2	600.2	600.0	712.4	842.2	1 195.5	5 095.5

Source: DANE; DAP.

Rarely has the Colombian government taken a direct part in production. Its clear intervention occurs only in the manufacture of steel, petroleum and petroleum products, and caustic soda, where it has operated autonomous decentralized enterprises, though not exclusively so. The bulk of industrial investment then, depends on the initiative and responsibility of the private sector. Efforts in this sector have been hindered in recent years mainly by the supply of imported capital goods, resulting in delays and postponements in the fulfillment of plans. That part of investment required for building has proved easier to carry out than that required for machinery and equipment.

Censuses by DANE find that more than 60 per cent of fixed capital invested in the factory sector comes from corporations. It is therefore useful to observe changes in the structure of investment within the framework of sources and uses of funds of the industrial manufacturing corporations, regardless of the fact that heading investment for accounting purposes includes both the acquisition and transfer of assets.

Loans and contributions of capital from abroad are the main sources to which manufacturing corporations turn in their search for funds (see table 11). From 59 per cent of the total in 1956, these amounts rose to 75.7 per cent in 1962, and diminished again to 61.5 per cent in 1963. The main foreign source has been loans, capital contributions having fallen relatively each year, except in 1960. This results, despite domestic credit restrictions, from a broadening of the traditional banking system, the development of finance corporations and the Private Investment Fund, and a rise in foreign loans by an amount unknown.

Reserves are the main domestic source of capital. The contribution of undistributed profits fell from 13 per cent in 1956 to 2 per cent in 1960 - an exceptional 14 per cent being registered in 1959 - but since 1962 have been recovering, reaching 10 per cent in 1963.

/Table 11

Table 11

COLOMBIA: SOURCES AND USES OF INDUSTRIAL CORPORATION INVESTMENT

(Percentages)

	1956	1957	1958	1959	1960	1961	1962	1963
SOURCES	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Domestic sources	41.0	32.7	39.3	39.0	26.0	31.0	24.3	35.0
Reserves	27.7	23.1	34.9	25.0	24.0	28.0	7.3	24.9
Undistributed profits	13.3	9.6	4.4	14.0	2.0	3.0	17.0	10.1
Foreign sources	59.0	67.3	60.7	61.0	74.0	69.0	75.7	65.0
Loans	37.6	50.3	33.7	35.0	28.0	43.0	47.2	48.9
Capital contributions	21.4	17.0	27.0	26.0	46.0	26.0	28.5	16.1
USES	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Real investment	51.7	73.0	54.7	65.0	78.0	64.0	47.4	58.5
Gross fixed capital formed	34.3	34.7	26.1	31.0	55.0	55.0	40.3	28.0
Change of inventory	17.4	38.3	28.6	34.0	23.0	9.0	7.1	30.5
Financial investment	33.6	25.1	42.7	31.0	21.0	36.0	43.8	41.5
Cash	9.1	1.0	2.2	3.0	2.0	4.0	10.6	0.6
Securities	4.4	8.7	11.7	2.0	4.0	8.0	7.8	9.9
Credit	20.1	15.4	28.8	26.0	15.0	24.0	25.4	33.0
Land purchase	3.6	1.7	2.1	...	2.0	1.0	10.8	-1.2
Intangible	11.1	0.2	0.5	4.0	(1.0)	(1.0)	2.0	1.2
Total sources (millions of pesos at current prices)	562.0	693.0	661.0	893.0	1 841.0	1 329.0	1 567.0	2 973.0
Number of companies included	277.0	286.0	297.0	322.0	361.0	388.0	433.0	458.0

Source: Annual reports of the Inspectorate of Corporations (Superintendencia de Sociedades Anónimas).

/The greater

The greater participation of reserves, with some tendency to diminish, is shown in table A.8 (Statistical Annex) - distribution of all corporate profits, domestic and foreign. Undistributed profits from domestic corporations have increased their importance to about 30 per cent of total gross profits (see table 12).

The allocation of net profits by domestic corporations is tabulated in table A.9. The share of distributed profits in the total fell from 62.2 per cent in 1953 to 46.2 per cent in 1956, and 37.8 per cent in 1963. Such profits generally take the form of ordinary dividends.

Although the percentage of total distributed corporate profits is falling, the movement is much more rapid on the part of the domestic corporations, showing that the foreign corporations reinvest relatively much less, a good part of their profits being re-exported.

An analysis of the use made by industrial corporations of investment funds from 1956 to 1962, shows real investment predominating within which, the gross formation of fixed capital is increasing. In 1963, a considerable rise in inventory investment reduced this item, the change resulting from the difficulties of importing equipment, which coincided with a fall in private building activities [1] and a preference on the part of corporations to accumulate inventories and gain from the price rises of recent years.

Financial investment's share in the total use of funds, while varying, has tended to rise, whereas real investment has fallen. Credit is the foremost item in industrial financing, followed by cash holdings and then securities. Credit and cash holdings are tending to increase their relative share, and securities are recovering after a very sharp fall in 1959.

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[1] The production volume index for private building fell by 28.2 per cent in 1963.

/Table 12

Table 12

COLOMBIA: DISTRIBUTION OF GROSS PROFITS OF DOMESTIC CORPORATIONS

(Percentages)

	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Number of corporations	(276)	(336)	(375)	(408)	(416)	(439)	(694)	(745)	(814)	(902)	(985)
Total gross profits (A+B)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
A - Reserves - provisions	51.6	48.8	72.4	51.0	50.0	52.0	43.8	47.6	49.1	49.0	49.0
B - Net profits (1+2)	49.4	51.2	27.6	49.0	50.0	48.0	56.2	52.4	50.9	51.0	51.0
1 - Undistributed	18.3	21.8	13.8	22.7	27.1	25.8	30.8	30.4	28.7	30.0	31.7
2 - Distributed	31.1	30.4	12.8	26.3	22.9	22.2	19.4	22.0	22.2	21.0	19.3

Source: DAP, based on data from the Inspectorate of Corporations Report (Estado de Ganancias y Pérdidas. Síntesis General).

Funds used in land purchase were relatively low from 1956 to 1962 when they rose abruptly, resulting in a net sale in 1963. Purchase of intangibles was variable and small from 1957 on.

5. Size and characteristics of industrial establishments

A total paid employment of 269,449 persons were engaged in factory industry in 1963 which comprised 11,296 establishments, 62.1 per cent of them employing 9 persons or less (see table 13). Only 4.2 per cent of establishments employed 100 persons or more. The average number of persons employed was 24.8. In 1957 this number was 21 and in 1959, 23.5, the proportion of establishments employing 9 or less persons being 64.3 and 61.9 per cent, and 100 or more persons, 3.2 and 3.9 per cent, respectively. Establishments employing 100 or more people provided 53.2 per cent of employment in 1963, accounted for 72.4 per cent of the gross aggregate value and 70.1 per cent of investments in fixed capital. The concentration of employment and production (measured by the gross product) in the higher strata is evident.

Manpower in the two highest strata (100 persons and more) is above the average, largely owing to greater mechanization. This is indicated by the considerably greater machine power per person in the larger establishments. Salaries are also higher, especially in those employing more than 200 persons.

6. Location of industry

Factory activity is mainly concentrated in four cities, Medellín, Barranquilla, Bogotá and Cali, and in their respective Departments, Antioquia, Atlántico, Cundinamarca and Valle del Cauca. Cundinamarca accounted for 24.8 per cent of the gross domestic product in 1953, 27.7 per cent in 1960, and 29.3 per cent in 1963 (see table 14). Over the same years, Antioquia's production accounted for 25.7, 23.3 and 23.8 per cent, a small relative fall. The figures for Valle del Cauca were 17.2, 19 and 20.1 per cent, and for Atlántico, 8.6, 8.1 and 8.2 per cent, respectively.

/Table 13

Table 13

COLOMBIA: CHARACTERISTICS OF THE DIFFERENT STRATA OF FACTORY INDUSTRY

(Percentage distribution)

Stratum	Establishment	Employment	Gross aggregate value	Manpower productivity	Salary per person employed	Machine power per person employed	Investment in fixed capital
Number employed							
Less than 5 to 9	62.1	11.9	3.8	31.8	30.7	43.4	1.9
From 10 to 19	18.3	9.6	4.4	45.9	54.5	53.4	5.0
From 20 to 49	11.0	13.3	9.0	67.6	80.0	84.4	9.1
From 50 to 99	4.4	12.0	10.4	86.4	97.9	68.8	13.9
From 100 to 199	2.3	12.7	18.6	146.8	117.6	95.7	16.6
200 and more	1.9	40.5	53.8	132.7	132.0	143.3	53.5
Total industry	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Absolute figures for the entire factory industry are:

Number of establishments: 11 296 = 100 %

Total employment: 280 520 = 100 %

Paid employment: 269 449 = 100 %

Gross aggregate value: 8 768.2 million pesos = 100 %

Manpower productivity: 31 257 million pesos = 100 %

Salaries and loans per person employed: 9 879 pesos = 100 %

Machine power per person employed: 3.3 HP = 100 %

Fixed capital investment: 773.7 million pesos = 100 %

Source: DANE, prepared by Overall Economic Studies Division.

/Table 14

Table 14

COLOMBIA: GROSS DOMESTIC PRODUCT OF FACTORY INDUSTRY BY DEPARTMENTS

(Percentages)

Department	1953	1956	1960	1963
Antioquia	25.7	25.7	23.3	23.8
Atlántico	8.6	9.1	8.1	8.2
Cundinamarca	24.8	27.7	27.7	29.3
Valle	17.2	17.8	19.0	20.1
Rest of country	23.7	19.7	21.9	18.6
Total	100.0	100.0	100.0	100.0

Source: Prepared by DAP's Overall Economic Studies Division with information from DANE.

The regional distribution for the branches of industry given in table A.10 (Statistical Annex), illustrates typical cases of industrial concentration, such as textiles in Antioquia (70 per cent), paper in Valle (68.7 per cent), and chemical products (42.3 per cent) and printing (49.2 per cent) in Cundinamarca. The production of rolled steel products is concentrated in Boyacá (75 per cent) and petroleum products in Santander and Bolívar Departments (more than 90 per cent). The last three Departments are included in the column "rest of country".

The same regional concentration in employment as in production is shown in table 15 which lists factory employment by Departments.

Among the factors which have put four Departments in the forefront of Colombian industry must be counted the energy and business ability of the Antioqueños who have made Medellín their capital, one of the great industrial centres of Latin America; Baranquilla's situation as the country's port of entry over a long period; the creation, in Bogotá, of a great urban centre on which the main lines of development converge; and the excellent situation of Cali, in the Valle del Cauca, as an agricultural market which has given rise to a great industrial centre. In each of these cities and their Departments, development has been cumulative.

/Table 15

Table 15

COLOMBIA: EMPLOYMENT IN FACTORY INDUSTRY BY DEPARTMENTS

Department	Thousands of persons			Percentage of total		
	1953	1960	1963	1953	1960	1963
Antioquia	47.3	64.3	68.6	24.6	25.4	24.5
Atlántico	18.3	23.1	25.8	9.5	9.1	9.2
Cundinamarca	47.9	76.5	86.4	24.9	30.2	30.8
Valle	27.8	42.2	49.8	14.5	16.6	17.7
Rest of country	50.9	47.3	49.9	26.5	18.7	17.8
Total	192.2	253.4	280.5	100.0	100.0	100.0

Source: Prepared by DAP's Overall Economic Studies Division with information from DANE.

A very large part then, of Colombian factory production is to be found in the great industrial centres of Medellín and its satellite towns, Envigado, Itagüí and Bello; Barranquilla, Cali and the towns to the north along the Cauca river as far as the Department of Caldas; Bogotá and the towns of the Bogotá Savanna. Apart from this, industrialization is under way in some towns in Caldas - Manizales, Pereira, Armenia and Bucaramanga, capital of Santandes del Sur. Cartagena has prospects of becoming the centre of the petrochemical industry, and also is the site of the steel-making and oil-bearing areas, Belencito, in Boyacá and Barrancabermeja, in Santander in which large-scale enterprises have flourished but have not expanded.

7. Problems of industry

The main problems facing Colombian industry are the low level of investment; the high percentage of idle capacity; difficulty of obtaining raw materials, intermediate goods and foreign capital; high dependence on imports; low consumer purchasing power; regional concentration of industry; disproportion of small- and large-scale industry; limited

/creation of

creation of new employment, and bottlenecks in the production of some goods. The financing of working and fixed capital is also difficult, particularly for medium and small industry.

The areas in which study is needed and the specific problems of the various branches of industry are listed in table 16.

Table 16

COLOMBIA: STUDIES REQUIRED AND SPECIFIC PROBLEMS IN INDUSTRY

Branch	Immediate studies	Main problems	Items to be studied
Food products	Expansion of exports in some sub-sectors; need for modernization and technical assistance; problems of inputs	Cost and quality of agricultural inputs, high production cost in some sub-sectors, lack of internal markets	Preserving sugar, edible oils, meat
Beverages and tobacco	Possibility of customs concessions within ALALC and expansion of cigarette exports	Lack of external market. Idle capacity	Wines, cigarettes
Textiles	Exports to ALALC by the settling of competition and mutual customs concessions; development of a plan for synthetic fibres including exports	Raw material costs (cotton, wool, synthetic fibres)	All
Clothing and footwear	Problems of distribution, credit and marketing	Lack of markets caused by low purchasing power, high production cost, increase in inventories and low level of profits	All
Wood and wood products	Plans for reforestation, exploitation, processing, and expansion of exports	Lack of information on basic resources, lack of technical know-how regarding processed and unprocessed woods	All
Pulp and paper	Continuation of sector's dynamic expansion; future production of long-fibre pulp from pine and plan for pine reforestation	Substitution of some paper and long-fibre pulp imports	All
Printing, etc.	-	-	-
Leather	Technical assistance	Modernization and technical assistance, quality of raw material	Tanning
Rubber	Expansion of exports; production of synthetic rubber from polybutadene	Import substitution, diversification of exports	

/Table 16 (Concl.)

Table 16 (Concl.)

Branch	Immediate studies	Main problems	Items to be studied
Chemical products	Need for customs concessions from ALALC to broaden markets, and a settlement of competition within the zone; general expansion of exports; more detailed study of large scale production	Import substitution, high outflow of foreign exchange from sector as a whole; high production costs in several existing plants; lack of dynamism in the sector; approval of different plants manufacturing the same product for a limited market	
Petroleum and petroleum products	Optimum long-term programme for refineries, petroleum chemicals, natural gas, and oil pipelines; increased exports of crude oil	Outflow of foreign exchange from the sector; low utilization of available natural gas; gasoline price and tax policy	Natural gas, raw materials for petroleum chemicals
Non-metallic minerals	Long-term study of the market for cement and other construction materials and setting up of a plan; study of non-metallic rare mineral resources; expansion of exports by reduction of costs	Production and transportation costs; location of the cement industry	Production of new construction materials and export of non-metallic rare minerals
Metallic minerals	Study of iron resources and programme to raise production capacity	Need to increase steel production; import substitution; high cost of steel	Steel, forgings, non-ferrous metal castings
Metal products excluding machinery	Lowering of costs and expansion of market by export to ALALC; import substitution	Cost of inputs, high production costs, lack of markets, high unused capacity, need for technical assistance, high import requirements	
Non-electrical machinery	Setting up of a long term economic plan for production, importation and integration by means of component production for important machinery	Lowest degree of self-sufficiency of any industrial sector plus all the above problems for metal products	Agricultural and industrial machinery
Machinery and electrical equipment	Similar to programme for non-electrical machinery, long term study, greater dynamism as regards all of the Ministry of Development's assembly contracts.	Same problems as metallic products and non-electrical machinery	Generating, transmission and distribution equipment for industry and for the consumer
Transport equipment	Long term study of all equipment needs; setting up a long term plan of production and integration	Similar problems to the above sections	Plan for automotive transportation and other kinds of transportation equipment

/Chapter III

Chapter III

THE PRINCIPAL SECTORS OF MANUFACTURING

1. Foods

This food industry, until recently leading Colombian manufacture, today accounts for only 11 per cent of the gross product and 14 per cent of industrial employment. It also plays a large part in artisan manufacture, especially in the preparation of foods and confectionery products for the local market.

The first artisan mills for flour and sugar cane as well as factories making chocolate, bread and other food products already existed in the colonial period. With the development of coffee-growing in the last century, hulling and roastering plants were set up. The food industry remained the most important up until 1925, though still engaged in the simple processing of agricultural products. In the thirties, vegetable preserving began and the first milk pasteurizing plants were set up. In recent years output has increased in preserved vegetables and sea foods, canned foods, coffee extracts and quality confectionery, part of which is exported.

All food manufactures in Colombia are intended for domestic consumption, except of course much of the hulled coffee and cane sugar and some of the confectionery products.

In 1963 there were 2,874 factories producing foods, together with about 3,000 artisan units. The factories employed 40,400 persons, 31 per cent of them in breadmaking, and 24 per cent in the threshing of coffee, mainly, and of rice and maize, and in the milling of barley, wheat [1] and other grains.

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[1] At present there are 90 mills capable of milling some 650,000 tons of wheat a year. Their operating level depends greatly on the balance between domestic wheat production and imports of grain and flour.

/Table 17

Table 17

COLOMBIA: PRODUCTION VOLUME OF SOME FOOD AND BEVERAGE INDUSTRIES (GROUPS 20 AND 21)

Product	Unit	1950	1955	1960	1961	1962	1963
1. Sugar (raw value)	Thousand tons	146.5	253.3	328.3	362.6	401.9	368.1
2. Coffee (hulled)	Index	100.0	110.1	136.4	132.0	135.4	131.9
3. Rice (husked)	Index	100.0	132.5	172.5	181.5	224.2	208.9
4. Wheat products	Index	100.0	145.0	164.0	170.8	196.8	127.8
5. Wheat flour	Thousand tons	108.6	137.0	120.0	161.0	169.0	151.0
6. Food pastes	Tons	8 085	11 679	20 659	21 250	26 755	27 654
7. Chocolate	Tons	33 284	32 547	32 540	32 139	36 188	39 038
8. Vegetable oils	Tons	17 009	50 877	50 912	49 555	49 809	50 100*
9. Beef	Thousand head		1 306.6	1 528.4	1 529.7	1 800.5	1 946.1
10. Quantum of processed foods	Index	100.0	149.5	182.1	196.0	214.7	210.1
11. Malt	Thousand tons	18.6	31.9	63.2	64.38	71.76	70.58*
12. Beer	Thousand hectalitres	2 795	4 512	6 138	6 266	6 519*	6 169*
13. Carbonated beverages	Million litres	231.70*	276.70*	336.34	371.34	388.93**	391.38**
14. Quantum of beverages	Index	100.0	127.2	160.1	166.4	176.1	175.0*

Sources of information:

1. Bank of Colombia. Asocaña.
2. National Manufacturers Association (Asociación Nacional de Industriales - ANDI), calculated according to figures from the Bank of Colombia.
3. ANDI, calculated according to figures from Fedearroz.
4. ANDI, calculated according to available wheat.
5. Planning (1953-60) ANDI (estim. 1961-63).
6. Fedepas. DANE.
7. ECLA (1950-52) Bank of Colombia (1955) Factories (1956-63) DANE (1953). ANDI (1954).
8. IFA (estimate from factory data).
9. DANE (cattle slaughter).
10. Bank of Colombia (1950-62) ANDI (estim. 1963).
11. Ministry of Development (1950-59) Enterprises (1960-63).
12. DANE (1950-62) ANDI (estim. 1963*).
13. DANE CEPAL (*) ANDI (estim. 1962-63**) ANDI (revision (r).
14. Bank of Colombia (1950-62) ANDI (estim. 1963*).

The number of persons employed per establishment in the different groups of food producing factories varies greatly, from an average of 10 persons in baking to 15 in milling and the manufacture of chocolate and confectionery, 20 in dairy products and preserving, and 200 in the sugar mills.

The average installed capacity in each group gives some idea of the size of plants and the degree of mechanization. The average installed power per unit of production ranged from 19.3 HP for meat to 37.4 HP for chocolate and confectionery; 48.6 HP for preserved sea foods; 59.4 HP for baked products; 62.2 HP for milled products; 73.6 HP for dairy products; 119.0 HP for preserved vegetables; and 1,647.5 HP for sugar.

The aggregate value contributed by the various groups in the industry is as follows: milling, 34 per cent; breadmaking, 14 per cent; sugar, 15 per cent; dairy products, 10 per cent; chocolate and confectionery, 7 per cent, and the remainder in other foods, mainly edible fats.

Of Colombia's 275 million dollars in imported intermediate goods and raw materials for industry in 1964, 31.6 million were needed by the food industry.

The milling of wheat depends to a large extent on imported grain since crops have been variable and no progress has been made towards a lesser dependence on foreign supply. On the other hand the development of brewing and malting has certainly stimulated the cultivation of barley, which competes with wheat for available soils and suitable climates.

The extraction of vegetable oils from various kinds of raw materials exceeds 50,000 tons per year and although production of oil-bearing raw materials has been rising rapidly, considerable imports are still required for the manufacture of fats and oils. The rapid growth of cotton growing for the needs of the textile industry has increased the amount of domestic cotton seed available from 13,500 tons in 1950 to some 120,000 tons in 1965. Production of soya beans has also risen from 3,000 in 1954 to some 35,000 tons, and of sesame from 5,000 tons in 1952 to some 25,000 tons. There has been little copra since the disappearance of

/palm groves

palm groves from the Caribbean coast, and to compensate part of this, cultivation of the African palm has been encouraged, production is approximately 5,000 tons.

Expansion of the Colombian food industry, other than hulled coffee, depends first and foremost on raising domestic consumption of manufactured foods. The amount of exports matters only as regards sugar which is subject to the ups and downs of the international market. Also exported are confectionery products and some coffee extracts. The preserving industry for vegetable and animal products could develop at satisfactory levels, finding both domestic and foreign markets, provided that the supply and quality of agricultural products can be stabilized at suitable prices.

The growth of the food industry in Colombia has lost impetus but would recover it if obstacles were removed such as the upsets in the supply of raw materials caused by low and irregular domestic production, import difficulties, and inefficient marketing systems.

Various aspects of the food industry are illustrated in tables 18 to 23.

Table 18

COLOMBIA: PRODUCTION GROWTH IN THE FOOD INDUSTRY (GROUP 20), 1950-1962

(Millions of pesos at current prices)

Year	Finished value	Value added	Volume index
1950	537.2	114.4	100.0
1955	1 077.0	234.9	149.3
1960	2 223.8	538.3	182.0
1961	2 344.3	665.8	196.0
1962	2 540.8	751.5	208.0

Source: Prepared by ANDI with data from the Industrial Development Institute (Instituto de Fomento Industrial), the Department of Statistics and the Bank of Colombia.

Note: Excludes coffee hulling.

/Table 19

Table 19

COLOMBIA: PRODUCTION OF CERTAIN FOODS (GROUP 20), 1963

(Tons)

Product	Output
Husked rice	540 000
Wheat flour	151 000
Sugar	370 100
Chocolate	39 000
Hulled coffee	410 000
Food pastes	27 600
Vegetable oils	50 000

Table 20

COLOMBIA: PRICE INDEX OF RAW MATERIALS AND FINISHED PRODUCTS IN THE FOOD INDUSTRY (GROUP 20)

Year	Raw material index	Index of finished products
1950	100.0	100.0
1955	128.0	115.8
1956	135.5	121.9
1957	174.9	152.3
1958	217.0	174.0
1959	231.2	183.2
1960	242.5	
1961	247.3	
1962	252.8	
1963	288.3	

Source: Industrial Development Institute 1950-1959, ANDI (estimates 1960-1962).

Note: Hulled coffee is not included in the price index of finished products.

/Table 21

Table 21

COLOMBIA: PRICE INDEX OF FOOD PRODUCTS (GROUP 20)

Year	Dairy products	Cereals and cereal preparations	Fish and fish preparations	Sugar and panela	Coffee and cocoa	Miscel-laneous food
1950	85.7	102.5	82.8	87.8	85.2	109.6
1955	119.6	116.9	98.8	93.3	115.6	101.8
1956	128.8	128.8	113.5	99.4	134.6	112.4
1957	148.6	160.5	153.6	173.0	161.0	151.4
1958	167.7	177.2	184.5	202.1	168.6	171.5
1959	182.3	191.2	219.9	191.0	182.8	177.9
1960	192.8	198.2	251.1	173.2	184.3	179.1
1961	204.9	225.5	274.2	169.2	182.1	186.1
1962	218.5	212.2	282.1	222.4	184.0	180.8

Note: The headings include the following products:
Dairy products: Milk, pasteurized and unpasteurized, butter, cheese.
Cereals and cereal preparations: Grade 1 wheat, grade 1, 2 and 3 rice; white and yellow maize; wheat flour, domestic and foreign; maize flour; maize starch, canned oats, food pastes.
Fish and fish preparations: sardines.
Sugar and panela: grades 1 and 2.
Miscellaneous foods: vegetable lard and pork fat.

Table 22

COLOMBIA: INSTALLED POWER IN THE FOOD INDUSTRY (GROUP 20), 1963

Industrial group	Installed capacity	Capacity per establishment
	HP	
Meat processing	752	19.3
Dairy products	9 719	73.6
Preserving of vegetables	1 306	119.0
Preserving of sea foods	632	48.6
Milling	42 802	62.2
Breadmaking	6 963	54.9
Sugar	32 952	1 647.5
Chocolate and confectionery	4 800	37.4
Miscellaneous foods	31 528	119.7
Total	131 462	48.5

Source: DANE, Boletín Mensual de Estadística.

/Table 23

Table 23

COLOMBIA: IMPORTS OF CERTAIN RAW MATERIALS FOR THE FOOD INDUSTRY (GROUP 20)

(Value in thousands of dollars)

	1959		1960		1961		1962		1963	
	Tons	Value	Tons	Value	Tons	Value	Tons	Value	Tons	Value
Wheat	96 052	8 306	86 150	7 496	126 478	11 289	135 290	13 042	93 006	8 337
Copra	28 946	6 985	35 274	8 157	29 970	5 891	27 388	5 119	13 650	2 722
Cocoa	7 027	5 629	3 629	2 455	8 451	3 707	9 218	4 576	5 829	3 552
Soya oil unpurified	2 695	2 921	4 641	4 781			2 365	2 942	1 069	1 241
Wheat flour	27 156	3 070	17 429	1 961	6 140	669	384	48		
Hydrogenated oils and fats, unpurified	1 271	430	3 408	1 045	92	41	4 783	1 162	1 721	346
Oats	4 091	613	5 444	890	6 886	1 000	5 515	849	5 235	835

Source: DANE, Anuarios de Comercio Exterior and Boletín Mensual de Estadística.

2. Textiles

Although the textile industry is one of the oldest in the country, its expansion did not gain impetus until the thirties. Today, it is a highly integrated and diversified domestic industry. Growing rapidly and efficiently, it has stimulated domestic production of the raw materials needed in the manufacture of clothing and made-up goods.

The textile factory sector in 1963 comprised 461 establishments, 107 of them in Antioquia and 171 in Cundinamarca, mainly in Medellín and Bogotá. Of the 45,045 persons employed, 25,970 worked in Antioquia and 8,370 in Cundinamarca. The industry contributed 17 per cent of the gross factory product, accounted for 16 per cent of employment and paid wages and salaries amounting to 20 per cent of the total for factory industry.

/The textile

The textile industry is one of Colombia's most important. Its dynamism has enabled it to satisfy a rapidly rising domestic consumption at suitable prices and qualities, and to export competitively, mainly to the United States, Canada, Great Britain, South Africa, Korea and Central America.

Productive capacity is concentrated in the larger enterprises situated in Medellín, in the Department of Antioquia. These account for 65 per cent of installed power in the industry and generate 58 per cent of employment, averaging 243 persons employed per establishment as against 100 (approx.) for the country as a whole.

The highest volume and value of Colombia's textile production is in the spinning of plane cotton cloths, together with weaving, followed by silk, wool and knitted fabrics.

An ECLA study [2] for 1961 estimates the inventory of machines in the industry as follows: for plane cotton products, 560,000 spindles and 11,000 looms; for wool, 48,500 spindles and 1,000 looms; and for man-made fibres, 32,000 spindles and 3,500 looms, noting that the figures for the last activity mentioned are uncertain and may include others unrelated. The study also points out that some Colombian enterprises operate 150,000 or even above 200,000 cotton spindles, whereas in countries with larger populations, such as Argentina and Brazil, the largest spinning establishments operate between 50,000 and 100,000 spindles.

ECLA's analysis of equipment in the Colombian industry notes the high automatization, especially in cotton yarn and cloth, with man-made fibres next. In the wool sector the proportion of workshops is higher but in almost all cases the machinery is modern and well maintained.

If 6,600 hours per year is taken as the yardstick of minimum utilization for economic operation in Latin America, Colombia's spinning machines exceed this while the weaving machines fall just short of it, resulting in almost continuous operation of all installed machinery in 1961. The utilization indices are highest in these two sectors.

2/ La Industria Textil en América Latina, III Colombia, United Nations, 1964.

/Much of

Much of the industry's raw material is of domestic origin. Rapid progress has been made in substituting imports of raw cotton, artificial fibres, wool tops and certain chemical products.

Production of cotton fibre rose from 6,500 tons in 1950 to 80,000 in 1962, allowing exports beginning in 1958 to rise from 1,000 tons to 30,000 tons in 1962. Both production and exportable surplus have fallen in the last three years, as this crop has given way to others. Per capita consumption rose from 2.3 kilogrammes in 1962 to 3.4 kilogrammes in 1963.

Domestic wool production is small and shows no real growth. From 700 tons in 1957 it now stands at over 1,000 tons a year. On the other hand, the 55 per cent of wool yarns imported in 1957 have been eliminated.

Although consumption of textiles made from artificial fibres has increased, imports of these fibres and yarns has fallen. The production of cellulose fibres began with viscose rayon in 1945, and rayon acetate followed in 1951. At present more than 12,000 tons of rayon is produced each year, sufficient for exports mainly to Ecuador, Peru and Korea. The manufacture of polyester products, nylon and similar materials is just beginning.

The rapid growth in consumption of textile products is in some measure due to the abundant supply at attractive price and quality, and to increase in purchasing power. The ECLA study referred to estimates per capita consumption to have grown 27 per cent in the ten year period 1950-1960, from 3.0 kilogrammes to 3.8 kilogrammes, 75 per cent of this being cotton. Use of all fibres increased, wool least, owing partly to the increasing production of mixtures of wool and other natural fibres with man-made fibres.

The ECLA study found consumption of textiles to depend greatly on variations in per capita income and in prices. The income and price elasticities for textile consumption are calculated to be 1.53 and -1.34 respectively. Assuming a growth rate for per capita income of 2.2 per cent per year, textile consumption should rise to 109,955 tons by 1970, so that per capita consumption would increase from 3.8 to 5.4 kilogrammes. Although the authors in making this projection acknowledge its limitations, the development of the industry clearly remains rapid and promising.

/In addition

In addition to the increased domestic demand, Colombian textiles are able to reach foreign markets where their efficient manufacture and their price levels enable them to compete when protectionist barriers are not too high. Up until now, exports to countries outside of ALALC have been made by negociating quotas with the purchasing countries as in the case of the United States and England.

The f.o.b. value of textile exports has increased significantly in recent years, from 532 thousand dollars in 1960 to 1.5 million in 1961, 4.8 million in 1962 and 1963, and 8.3 million in 1964. Artificial silk and cotton yarns contributed 2.9 million dollars to the total in 1962, 2.6 million in 1963 and 3.9 million in 1964 while cotton cloths contributed 1.6 million, 1.9 million and 4.4 million over the same years. Unregistered exports to neighbouring countries have been considerable in recent years, some 40 million dollars a year from 1958 to 1960, 15 million in 1961 and 1962 and 5 million in 1963.[3]

Table 24

COLOMBIA: PRODUCTION VOLUME OF CERTAIN TEXTILE ITEMS (GROUP 23)

Product	Unit	1950	1955	1960	1961	1962	1963
1. Cotton yarns	Tonnage index	100.0	125.0	182.0	188.2	194.5	200.1
2. Cotton cloths	Million yards	204.2	290.1	286.7	298.4	317.3	330.4
Wool yarns	Tons	947	1 919	2 879	2 887	2 763	2 804
Wool tops	Tons	0	0	0	0	642	1 932
Fabrics	Thousand metres	3 096	4 255	4 734	4 560	4 810	4 810
Artificial yarns and fibres	Tons	1 806	7 271	8 616	9 948	9 850*	10 050*
Quantum of textile production	Index	57.6	90.1	119.0	123.1	127.7	132.2*

URCES:

ANDI, calculations according to cotton consumption.

ECLA (1950-53), ANDI (1954-55), DANE (1956-61) Factories (1962-63).

Planning (1950-58) Factories (1959-63).

Factories.

ECLA (1950-53), ANDI(1954-55), DANE (1956-61), Factories (1962-63).

Planning DANE, ANDI (calculated from raw materials) (*).

Bank of Colombia National Accounts, ANDI (1963 estimate) (*)

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[3] Figures for unregistered textile exports also include some made-up goods, footwear and various other products.

/3. Chemicals

3. Chemicals

Until the twenties, the manufacture of chemical products was limited to soaps, candles, matches and waxes. In the following decade manufacture began of paints and some insecticides and pharmaceutical products, and in the forties, of tanning materials (from mangrove) artificial fibres (rayon) and sulphuric acid. From then on chemicals began to play, an important part in manufacturing. Recently large plants have been installed to produce alkalis, agricultural chemicals and nitrogen products for industrial use, and there has been a promising development in sugar and petroleum chemicals.

The sector comprising soap, paints, pharmaceuticals, fats and oils still predominates over the rapidly growing basic chemicals (industrial reagents, fertilizers, organic chemicals). There were 480 factories of all sizes in 1963, 50 of them produced basic chemicals; 190, drugs; 170, soap and waxes; 20, oils and fats; 15, paints and inks; 8, matches, and the remainder, industrial gases and miscellaneous products.

In 1953, the chemical sector employed 9,980 persons, or 5.2 per cent of the 192,220 persons employed in factory industry. In 1963, the sector employed 18,350 persons, or 6.5 per cent of the 280,520 employed in factory activities. Of these 2,150 were employed in basic chemicals, 9,500 in pharmaceutical products, 3,000 in soaps and waxes, 900 in paints and inks, and the rest in matches, industrial gases, oils and fats, auxiliary chemicals, etc.

The average employment per establishment is somewhat less than 40 persons, but this figure includes the small establishments making soap, wax, auxiliary materials and many of the pharmaceutical laboratories.

In spite of the expansion and diversification of the chemical sector, its percentage contribution to the total gross manufactured product has risen only from 7.4 per cent in 1953 to 9 per cent, perhaps as a result of the continued importance of traditional production. Pharmaceutical products make up 65 per cent of the sector's value added, soaps 17 per cent, and basic chemicals 15 per cent.

/The chemical

The chemical industry itself manufactures most of its raw materials, principally tallow (crude and refined), paraffin, ammonioum phosphate, calcium phosphate, caustic soda, artificial resins, various chlorides, pigments, fatty acids, sodium carbonate, sodium silicate, coconut oil, together with petroleum and coal derivates, glass containers, paper and paperboard. Almost fifty per cent of the inputs are imported.

The growing demand for chemical products, together with import substitution, has given impetus to production, especially of the industrial chemicals - alkalis, acids, carbon tetrachloride, carbon bisulphide, artificial fibres, etc.

The chemical industry supplies about 50 per cent of demand. Manufactured chemical goods to the value of 105 million dollars were imported in 1962, 109 million in 1963, and 98 million in 1964 - a year in which foreign purchases where severely restricted. At present 20 per cent of the total value of manufactured chemical products is imported.

The main items imported are fertilisers, artificial resins, pure antibiotics, tallow, alkalis, sulphides and sulphates, potassium chloride, acetic acid, stearic acid, carbon bisulphide etc., together with synthetic rubber and paraffin. The United States, Germany, France, the United Kingdom and Japan provide more than 70 per cent of these items.

The value of Colombia's chemical exports has risen in recent years from 1.7 million dollars in 1962 to 2 million in 1963 and 3.1 million in 1964, the most important products being naphthenic acid, rayon, medicinal balsams and prepared or proportioned pharmaceutical products. A number of items are soon to be added, such as nitric acid, ammonia, ammonium nitrate, citric acid, acetic acid, calcium carbide, P.V.C. polystyrene, paraffin and carbon black. Some of the plants about to begin production have a greater installed capacity than the domestic market requires.

The following production figures for certain selected chemical products give an idea of the industry's advance in recent years.

(a) Caustic soda

Production began in 1953 with 6,750 tons, reaching 32,300 tons in 1964. Imports are still required - 22,570 tons in 1963. A new plant with a daily production capacity of 90 tons is under construction in Cartagena.

/(b) Sodium

(b) Sodium carbonate

Production rose from 20 tons in 1952 to 36,700 tons in 1963 and 37,700 tons in 1964. An average of 8,000 tons is imported.

(c) Sulphuric acid

Production rose from 650 tons in 1941 to 35,000 tons in 1963 and 3,800 in 1964.

(d) Nitrogen fertilizers

Production began in Cartagena in 1962 and in Barranca-Bermeja in 1964 and reached 100 thousand tons in various kinds of fertilizer in the latter year. Production of ammonium sulphate was 3,770 tons, simple superphosphate 4,700 tons, and ammonium nitrate 9,150 tons. Production of urea was 36,900 tons.

(e) Formaldehyde

The 1,500 tons produced in 1964 supplied domestic needs, the essential raw materials such as methanol had to be imported.

(f) Resins

A study by ANDI [4] estimated domestic demand in 1964 for urea-formaldehyde at 2,100 tons, alkyd resins at 1,100 tons, polyvinyl acetate 1,300 tons; phenol formaldehyde, 600 tons and melamine formaldehyde, 450 tons. The bulk of these requirements were produced in the country, together with lesser quantities of acrylic resins, polyesters and polyurethane.

(g) Plasticisers

A plant in Bogotá is capable of manufacturing up to 1,500 tons annually of dioctyl-phthalate and dibutyl-phthalate in addition to 1,000 tons of phthalic anhydride produced from surplus nepthalene, a by-product of Acerías de Paz del Río. Considerable amounts of this component are imported, more than 400 tons in 1964.

(h) Cellulose fibres

Production of viscose rayon began in 1945. The 1,550 tons of rayon produced in 1950 has risen to 10,500 tons per year - 7,500 tons of viscose and 3,000 tons of acetate rayon. Small amounts are exported, mainly to Ecuador, Peru, Uruguay and Japan. The cellulose needed in its manufacture has to be imported.

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[4] "Industrias y Productos Químicos", National Manufacturers' Association (Asociación Nacional de Industriales - ANDI), Gabriel Poveda Ramos, 1965.

/Table 25

Table 25

COLOMBIA: PROJECTS UNDER WAY FOR NEW CHEMICAL PLANTS

Developing enterprise	Product	Location	Stage of project	Production date	Investment (pesos)	Capacity	Inputs	Gross substitution (millions of dollars)
Petroquimica Colombiana	P.V.C.	Cartagena	Building works	1965 (1° Sept.)	55 000 000	11 340 tons/year	Ethylene	4 000 000
Dow Chemical Int.	Polystirene and plastics	Cartagena	Pre-building	1964	30 000 000	3 300 tons/year	Petroleum chemicals	
Fano	Oxigen, acetylene, nitrogen, ozone	Cartagena	Pre-building	1965	20 000 000			
Banco de la República	Caustic soda, soda ash, bicarbonate	Cartagena	Pre-building	1965	32 000 000* 70 000 000	320 tons/day soda ash 102 tons/day caustic soda	Sea salt (450 tons/day) Lime marl (600 tons/day)	3 800 000
Banco de la República	Electrolytic soda and chlorine	Cartagena	Study	1967	35 000 000	50 tons/day soda 40 tons/day chlorine	Salt	
American Cyanamid	Urea melamine resin	Cartagena	Building works	1965	400 000* 6 950 000	Urea formaldehyde (600 tons/year) Melamine formaldehyde (300 tons/yr.)	Crystal melamine Alfa-cellulose	0.200 000
Química Borden	Acrylic resins	Cali	Announced			200 tons/year	Acrylic bases	
Pintuco	Acrylic resins	Medellín	Announced			200 tons/year	Acrylic bases	
Química Proco	Acrylic resins	Medellín	Announced			200 tons/year	Acrylic bases	
Química Borden	Phenol-formaldehyde resins (moulding)	Cali	Installation	1965		300 tons/year	Phenol and methanol	
Grace	Phthalic anhydride	Barranquilla	Study			2 000 tons/year	Orthoxylene (imported)	
Pintuco	Phthalic anhydride	Medellín	Study			2 000 tons/year	Orthoxylene (imported)	
Líquido Carbónico S.A.	CO_2 (gas, ice)	Cartagena	Building works	1966				
Corporación Financiera Colombiana	Phosphoric acid, triple superphosphate	Cartagena	Preliminary	1966	3 800 000* 32 000 000	60 000 tons/year phosphoric acid 100 000 tons/year superphosphate	Sulphuric acid Rock phosphate	
Incolgrasos	Glycerin	Medellín	Building works	1965	15 000 000		Domestic fats	
Nylon de Colombia	Nylon 6	Medellín	Plan announced	1966	50 000 000	2 000 tons/year	Imported monomers	
Enka	Nylon 6 and polyester fibre	Medellín	Promotion	1966	60 000 000	700 tons/year textile nylon 1 920 tons/year polyester 1 450 tons/year nylon cord	Imported polymers	
Corporación Financiera	Caprolactam and nylon monomers	Cartagena	Announced	1968	180 000 000	12 000 tons/year	Domestic petroleum chemical products	
Planta de Fertilizantes	Fertilizers (plant expansion)	Barranca	Pre-building	1966	80 000 000		Refinery production	
Indumil	Dynamite	Muña	Building works	1965	29 600 000	2 500 tons/year	Nitric acid, glycerine	
Rhinco Products Ltd.	Herbicides, fungicides	Barranquilla	Production	1964	418 838*	10 400 lbs/year	Dithane	
Azul K. Limitada	Glycerin	Bogotá	Building works	1965	52 600*	200 tons/year	Natural fats and soda	0.085 049
Fábrica Nac. de Cloro	Ferric chloride	Betania	Pre-building	1965	1 200 000	5 000 tons/year	Chlorine and scrap iron	
Sucroquímica	Citric acid, acetic acid	Cali	Building works	1965	20 000 000	1 500 tons/year acetic acid 1 500 tons/year citric acid	Molasses	
Carburo de Colombia	Calcium carbide and P.V.C.	Nare-Betania	Building works	1965	2 700 000*	12 000 tons/year calcium carbide 5 500 tons/year P.V.C.	Local lime	2 300 000
Dupont	Fungicides	Barranquilla	Building works	1965	8 000 000	3 000 000 lbs/year		7 000 000
Química Suramericana	Sodium hydrosulphite	Manizales	Plan announced	1965	12 700 000	1 800 tons/year hydrosulphite 900 tons/year ZnO 240 tons/year bisulphite 510 tons/year sulphite	Native sulphur	1 000 000
Celanese	Nylon and nylon cord	Cali	Plan			2 000 tons/year	Polymers	4 000 000
Cofra Caldas Protexa	Waterproofing agents, fibre glass	Manizales	Pre-plan					
Instituto de Fomento Industrial	Nitric acid		Preliminary		2 500 000	900 tons/year		
Instituto de Fomento Industrial	Tannin extract	Riohacha			8 300 000			
Cabot	Carbon black	Cartagena	Building works	1965	2 500 000*	7 000 tons/year	Natural gas	1 600 000
Petroquímica del Atlántico	Ammonia	Barranquilla			300 000 000	700 tons/day	Natural gas	
Ecopetrol - Dow Chemical	Polyethylene, propylene	Barranca	Plan	1966	10 000 000*	12 000 tons/year	Gas	2 300 000
Quintal	Sulphuric acid (plan expansion) carbon bisulphide	Barranquilla	Plan			40 000 tons/year sulphuric acid 1 800 tons/year carbon bisulphide	Sulphur	
Ecopetrol	Paraffin, lubricants	Barranca	Building works	1966	3 500 000*	40 000 tons/year	Crude paraffins	4 000 000
Corporación Financiera	Carbon black	Valle del Cauca	Preliminary	1968	?	6 000 - 10 000 tons/year	Petroleum chemical products	

* Values in dollars.

/(i) Synthetic

(i) Synthetic fibres

Barranquilla produced 360 tons of nylon yarn in 1962. The plant has increased capacity to 1,400 tons and is able to polymerize 2,000 tons a year in one reacting unit. Three projects are being considered for the production of nylon 6, one of them for nylon cord, and two plants, in Cali and Medellín, with 2,000 tons per year capacity, will begin producing polyester fibre from imported polyester. Plans are being studied for the manufacture, from petroleum chemicals, of caprolactam, dimethylterephthalate, terephthalic acid and acrylonitrile.

The increasing pace of domestic demand, import substitution and foreign market possibilities all indicate a rapid future growth for the chemical industries. The most important projects are shown in table 25, taken from the National Manufacturers' Association (ANDI) study already referred to.

4. Pulp and paper

The pulp and paper industry in Colombia is recent but has developed rapidly. Small scale production of low quality paper and paperboard began in 1950 with an output of 8,000 tons, rising to 55,000 tons in 1960, 95,000 in 1963 and 115,000 tons in 1964. The main center of paper manufacture is Cali, where 80 per cent of installed capacity is located and 90 per cent of domestic production takes place.

In spite of the industry's progress, its contribution to the gross factory product is relatively small, 2 per cent in 1963. Its share in factory employment was also 2 per cent.

Table 26 gives figures for the apparent inputs of paper, paperboard and pulp in 1964.

Table 26

COLOMBIA: APPARENT CONSUMPTION OF PULP AND PAPER, 1964
(Tons)

	Newsprint	Printing and writing paper	Other papers	Total paper	Mechanical pulp	Chemical pulp (wood)	Other	Total pulp
Output	-	21 800	93 130	114 930	-	19 500	25 500	45 000
Imports	41 733	4 896	9 484	56 113	-	37 143	-	37 143
Apparent consumption	41 733	26 696	102 614	171 043	-	56 643	25 500	82 143

/Import substitution

Import substitution has been the main impetus to growth in the industry and the domestic demand has been satisfied for natural colour papers, glazed paper, Kraft paper, tissue paper etc., as well for paperboard and Bristol board and the same is being attempted for couché paper. Newsprint supplies depend entirely on foreign sources and no change is likely, owing to the requirements of production.

Colombia offers an excellent example of the use of non-fibrous resources in pulp manufacture. In Cali one large permanent plant, and a second smaller and marginal plant produce bleached pulp from sugar-cane bagasse. Another plant in Cali produces pulp from mixtures of tropical hardwoods.

The industry's future growth prospects are favourable. Pulp manufacture will have to be expanded to reduce imports and meet the rapidly growing demand. There will be a broad market for paper, particularly for packing should the use of corrugated paperboard boxes become general. The two larger plants in Cali have expanded capacity using modern equipment and will be able to meet the growing demand for their products.

With the aid of a concession from ALALC, a small part of paper production is being exported to Ecuador, 164 tons in 1964, with a goal of 1,200 tons in 1965. This is the first step towards finding foreign markets.

Recently the industry has encountered difficulties in the supply of raw materials and imported spare parts, together with a rise in domestic costs. On the other hand prices have not changed, and the government has been requested to authorize a rise of between 25 and 30 per cent. Whatever the outcome, this branch of industry will continue its highly dynamic growth.

/Table 27

Table 27

COLOMBIA: PRODUCTION OF PAPER AND PAPERBOARD (GROUP 27)

(Thousands of tons)

Year	Output
1950	8.20
1955	29.20
1956	35.30
1957	40.00
1958	43.10
1959	50.86
1960	55.30
1961	62.20
1962	82.80
1963	94.50

Source: Ministry of Development (Ministerio de Fomento), Boletín (1950-60). ANDI, (estimate 1961-63) according to data from enterprises.

/5. Steel

5. Steel making

Acerías Paz del Pacífico initiated the modern operation of the steel industry when it began production in 1955. Since then progress has been made in flat and non-flat steel products, but not as rapidly as the country's needs have grown. The evolution in the composition of apparent consumption of rolled steel products from 1952 to 1964 is shown in table 28. Although domestic production as a whole has grown, by concentration on non-flat steel products it has managed to meet 80 per cent of apparent domestic consumption for this item in 1964. Imports were less in those years in which the shortage of foreign exchange necessitated restrictions, such as in 1959, when the volume of imports fell to 11 per cent of consumption.

The Belencito plant in Paz del Río was originally built for the production of non-flat rolled steel products. Later, a mechanized mill for hot rolled flat steel was added with a capacity of 40,000 tons of ingots annually, and has produced 19,000 tons of flats annually since 1963.

Domestic production of rolled flats and non-flats amounts to 46 per cent of total consumption, flat products make up most of the imports. Of the 470 million dollars in imported manufactures for 1964, 50 million corresponded to the basic metal industries. Dependence on abroad for this kind of supply not only reduces available foreign exchange, but also makes difficult or holds back development of dependent industries such as metal-transforming, which greatly affect activity, employment and technological advance.

From 1962 to 1964, apparent consumption grew at 9 per cent cumulatively per year for non-flats and 8 per cent for flats. If severe restrictions in supply are avoided, a similar rate may be expected over the next 10 years, according to estimates made by ECLA. Clearly then, steel production will have to expand to meet the growing needs of the country's industrialization.

/Table 28

Table 28

COLOMBIA: PRODUCTION, IMPORTS AND APPARENT CONSUMPTION OF ROLLED STEEL PRODUCTS

(Thousands of tons of equivalent ingots) [a]

Year	Output		Imports			Apparent consumption		
	Flats	Non-flats	Flats	Non-flats	Total	Flats	Non-flats	Total
1952	-	11	57	91	148	57	102	159
1953	-	11	102	80	282	102	191	293
1954	-	16	130	228	358	130	244	374
1955	-	56	131	162	293	131	218	349
1956	-	110	162	173	335	162	283	445
1957	-	136	116	118	234	116	254	370
1958	-	131	84	61	145	84	192	276
1959	-	126	147	16	163	147	142	289
1960	-	151	183	52	235	183	203	386
1961	-	185	172	34	206	172	219	391
1962	-	193	174	21	195	174	214	388
1963	19	230	181	49	230	200	279	479
1964	19	245	255	61	316	274	306	580

[a] One ton of rolled products is estimated as 1.34 tons of ingots.

Of the three steel mills in Colombia, two are currently expanding capacity. The only integrated plant is that of Belencito which has been producing about 200,000 tons annually of non-flat products and 19,000 tons of flat products, measured in terms of ingots. The semi-integrated mill at Medellín uses scrap iron and has a capacity of 40 to 45 thousand tons of ingots per year. Plans for expansion at Belencito, already partly completed, are intended to provide an annual capacity of some 600,000 tons of ingots, of which 400,000 tons would be flats. Medellín is expanding capacity to 70 or 80 thousand tons annually by means of a new electric furnace utilizing continuous tapping. The entire production at Medellín will be of non-flats but an electrolytic galvanizing line for tin plate will be installed using at first imported sheet, and later the output from Belencito, once this plant reaches full capacity. Lastly the Cali plant is also equipped with electric furnaces and has an annual capacity of 25,000 tons of non-flat rolled steel products.

Because the Belencito plant is situated within 30 kilometres of iron deposits, coking coal and limestone, the cost of obtaining raw materials is low, however two factors cause production costs to be high: (a) the small size of the plant, and (b) the quality of the ore which is relatively low (47 per cent iron), is not amenable to concentration, and has a high phosphorous content (1 per cent). The mountain ranges of Colombia are an excellent natural protection for the Belencito plant's market in Bogotá which accounts for about 40 per cent of domestic consumption, but put it at a disadvantage for the coastal markets of Cali and Barranquilla with 15 and 12 per cent of consumption, approximately, while the other industrial centres, Medellín with 20 per cent and Bucaramanga with 6 per cent, are situated midway, as regards transportation costs, between Belencito and the possible ports of importation.

Close to the integrated Belencito mill are its own sources of iron, coal and limestone. The plant includes a coking furnace and a blast furnace designed to produce 500 tons/day, from which more than 600 tons are now being obtained. Further increase is sought by means of certain technological innovations (the agglomeration of the ore in self-fusing sinter, and increased draft). A second, larger, blast furnace is to be built soon. The steel mill, with a current capacity of 400,000 tons annually, is of the Thomas type owing to the ore's high phosphorous content. An oxygen plant is being set up to enrich the draft in the Thomas furnaces which will improve the quality of the steel and raise capacity to 600,000 tons annually. To the present equipment mainly producing non-flats, is being added a reversible mill for hot rolled flat steel with an annual capacity of 360,000 tons of finished flats (equivalent to about 480,000 tons in ingots) which will replace the present mechanized mill whose capacity is 40,000 tons annually and which has been producing 19,000 tons for the last three years.

/The production

The production of rolled steel which will be possible at Belencito after expansion is shown in table 29.

Table 29

COLOMBIA: PLANNED ANNUAL PRODUCTION FOR THE BELENCITO STEEL PLANT (ACERIAS PAZ DEL RIO S.A.)

Products	Tons of finished goods	Tons of ingots
Hot flat steel	360 000	480 000
Rails and medium shapes	24 000	32 000
Round bars and light shapes	65 000	86 000
Wire rod	36 000	48 000

The rolling mills will thus have a slight capacity excess over the tonnage in ingots which the steel furnace will be able to provide, and this will allow them to operate according to whatever the market may require. Apart from the rolling mills, Belencito also has a wire mill capable of producing 36,000 tons of steel wire per year, and this also is being expanded.

After rather a long period getting under way, the Belencito plant is now operating quite efficiently. The same cannot be said for the supply of raw materials, the high ash content of the coke, due to inadequate coal washing equipment, is the main obstacle to efficient operation of the blast furnace. The low proportion of clean coal recovered has a considerable ash content. Besides this the iron ore, of low grade and high in phosphorous, is also extremely fragile. In order not to slow up the working of the blast furnace with an excessive load of fine residue which hinders the draft, the material has to be separated in a sifter and stored until such time as the new self-fusing sinter plant, with a capacity of 12,000 tons daily, comes into operation.

The limit to the Belencito plant's expansion, beyond the 600,000 tons already being undertaken, is the Paz del Río iron ore reserves. Proved resources amount to 40 million tons at about 45 per cent grade, sufficient to justify the production aimed at. Further probable reserves in the same deposit amount to 200 million tons at a grade perhaps half as high. The costly work of exploring the probable reserves must be carried out in order to set an acceptable tonnage before a production increase above the limit referred to can be planned. The semi-integrated plants at Medellín and Cali are limited in growth by the availability of scrap iron, which should rise gradually with steel consumption.

Recently an iron deposit which seems promising although still in the exploration stage, has been found also located in the high central region near Bogotá. This could provide the base for a new integrated plant.

Table 30 shows the production capacity for rolled steel which will be attained in Colombia with the construction of the new Cali plant and expansion of those at Belencito and Medellín.

Table 30

COLOMBIA: INSTALLED CAPACITY PLANNED FOR ROLLED STEEL PRODUCTS

(Metric tons per year)

Plant	Annual production capacity in ingots	
	Flats	Non-flats
Paz del Río	400 000	200 000
Medellín	-	75 000
Cali	-	25 000
Total	400 000	300 000

The metal-transforming, building and other industries using steel, need thousands of steel products of varying shapes, sizes and qualities. On the other hand the steel mills cannot and should not cater to a very wide range of products in order to avoid excessive overheads caused by over-diversification. Moreover, in the developing countries there will always be products needed in small quantities whose manufacture would not justify the machinery required. The percentage of these products, which must continue to be imported, cannot be calculated. If we assume, by way of illustration, that the country can manufacture economically 80 per cent of the range of consumption, it follows that present expansion, including the projects mentioned, will be able to meet demand as follows: until 1968 for non-flat products, when it is estimated consumption will reach 360,000 tons (of ingots), and until 1973 for flat products, when consumption will reach 475,000 tons.

6. Metal-transforming

This heterogeneous group of activities, which comprises the manufacture of metal products, machinery, electrical apparatus and transport equipment, accounted for 11 per cent of the domestic product in 1963 and 17.5 per cent of factory employment.

In Colombia, these industries are mainly concerned with repair and maintenance, rendering services to manufacturing and transport rather than producing themselves. Such goods as are manufactured are simple metal products and small machines and apparatus of no great complexity.

Of the 470 million dollars worth of manufactured imports in 1964, metal products accounted for 22 million; non-electrical machinery and parts, 123 million; electrical machinery and apparatus, 46 million; and transport equipment, 55 million. In judging the importance of these figures it must be borne in mind that such purchases abroad were severely restricted during the year in question.

On account of the kind of products and the complexity of the processes, development of the metal-transforming industry can be taken as an index of the dynamism and maturity of manufacturing. In Colombia it is clearly backward owing to various factors - for example the country lacks the thick steel plate needed for manufacture of the heavier and more complicated goods in sufficient quantity and at suitable price. There are also technical problems of aid and markets, of stimulus and control of development, etc., not yet solved.

At the present time ECLA is carrying out a study of the sector to determine its prospects, discover the main obstacles, and indicate specific action to be taken.

/Chapter IV

Chapter IV

INDUSTRIAL DEVELOPMENT PLANS

1. Industrial programming

The General Plan for Economic and Social Development for the ten year period 1961-1970 established the following objectives for industrial developm

(a) The supply of manufactured goods in keeping with demand;

(b) The saving or obtaining of foreign exchange to ease balance of payment problems;

(c) The creation of new employment of relatively high productivity which would allow the income level of large social groups to be raised.

Although this general plan is in operation, there is in fact no specific plan of industrial development. However the National Planning Department is carrying out an analytic study of the sector on which a future programme will be based.

The first part of the study deals with the general growth of manufacturing in terms of value added, production, gross investment and fixed capital. The second part analyses the structure of factory production as regards foreign trade and the degree of self-sufficiency in consumer goods, intermediate and capital goods and miscellaneous industries. The third part of the study concerns employment and the last part the contribution of workers' wages to the industrial value added.

2. Organisations taking part in industrial development planning and policy

Industrial development planning is in charge of the National Council on Economic Policy and Planning, and the Administrative Planning Department.

(a) National Council on Economic Policy

Comprising the council are the President of the Republic, the Minister Housing and Public Credit, the Minister of Development, the Minister of Agriculture, the Minister of Public Works, the Head of the Administrative Planning Department, the General Manager of the Bank of Colombia (Banco de la República) and the Manager of the National Federation of Coffee Growers.

/The remaining

The remaining Cabinet ministers may take part and vote in the Council's discussions when the President of the Republic so directs, the latter also presides. The functions of the Council are to:

(i) Study and approve economic development plans submitted by the Administrative Planning Department;

(ii) Recommend to the Government and Congress of the Republic an economic policy able to fulfill the general development plans;

(iii) Study reports presented by the Head of the Administrative Planning Department on the progress of general, sectoral or regional plans, and recommend measures to be adopted for their carrying out;

(iv) Study and approve the sectoral and regional development plans for agriculture, foreign trade, industrial development, employment, etc., bringing them into accord with the general development plan, and make the necessary recommendations;

(v) Study and approve plans and projects presented by the Administrative Planning Department regarding the national budget, and the operation of the public investment programmes at the various levels of government; and

(vi) Offer opinion before the authorization of guarantees for foreign loans.

(b) Administrative Planning Department

The Department's functions are to:

(i) Collect and analyse the results of economic studies and research made by public departments and other public and private organizations, which may have value in framing national economic policy and planning economic and social development;

(ii) Draw up general plans of economic and social development, together with sectoral partial and regional plans, and submit them for study and approval to the National Council on Economic Policy;

(iii) Oversee development of the entire national economy, in particular the sectors of agriculture, foreign trade, industry and commerce, public finance, and employment;

/(iv) Prepare

(iv) Prepare and present periodic or occasional reports on the country's economic situation to the President of the Republic and give opinions on questions submitted by him, or by the National Council on Economic Policy or the public departments in general;

(v) Prepare modifications to the general economic and social development plan;

(vi) Co-operate with and give technical assistance to the Ministries, Administrative Departments, decentralized institutes and other public or semi-public organizations, such as may be required by the departments and municipalities, and instruct in the setting up of plans and investment programmes of such organizations or of the individual projects;

(vii) Consider the partial plans put forward by the various organizations mentioned in (vi) above, study them and co-ordinate them in overall plans for submission to the National Council on Economic Policy;

(viii) Point out the investigations required and the technical services that need to be set up to study the national economic development, or those which are essential to technical planning;

(ix) Request opinions from the various economic and university associations, etc., regarding national economic problems and development plans;

(x) Permanently oversee the state and amount of the foreign debt, public and private, and take the necessary steps to keep it within the country's capacity, for which purpose these debts may be required to be registered;

(xi) Contract national and foreign experts to carry out the functions specified; and

(xii) Lend to commissions and members of the National Congress technical aid required in the course of their duties.

Functioning within the Department are the following Divisions: Overall Economic Studies (Estudios Económicos Globales), Public Sector Agriculture, Foreign Trade, Private Sector, and Administrative, with their related sections studying and setting out the general lines of economic development for each of the main sectors of the economy.

/Within the

Within the Department, the Private Sector Division and the Specific Investment Projects Group are concerned with industrial programming.

The functions of the Private Sector Division are to:

(i) Analyse problems of development in the Private Sector;

(ii) Co-operate with industry and the assessments of the Specific Projects Group in formulating investment programmes;

(iii) Recommend incentives and policies to bring private initiative into accord with the development plans;

(iv) Aid in setting up planning centres in the main industries;

(v) Seek contact with the trade unions to gain their support for the aims of the development plan and to raise productivity levels;

(vi) Co-operate with private research agencies;

(vii) Study the general policy of price regulation and make recommendations to avoid restrictive trade practices; and

(viii) Conduct studies in the sectors of industry.

The Private Sector Division also comprises two special sections - the Industrial and Commercial Section, and the Manpower and Productivity Section.

The Industrial and Commercial Section maintains relations with private industry as regards investment programmes; evaluates applications for foreign financing; undertakes feasibility studies in co-operation with the Specific Projects Group; encourages technical assistance programmes for small industry, and recommends industrial policies in regard to fiscal concessions, investment stimuli, prices, direct or indirect control of monopolies, and the encouragement of mining activities.

The Manpower and Productivity Section classifies and estimates the working population; frames policies regarding employment and unemployment; maintains permanent contact with the trade unions; encourages programmes of industrial training and apprenticeship; submits studies concerning the level and possible improvement of productivity; studies the problems of artisan activity; investigates working conditions in the private sector and frames suitable wage policies.

/The tasks

The tasks assigned to the Specific Projects Group are to:

(i) Evaluate specific development projects to determine the order of priority;

(ii) Lend technical assistance to organizations aiding in the preparation of specific projects; and

(iii) Carry out a national inventory of specific projects in preparation, and administer their putting into effect.

(c) Economic Consultation Group

This group, although not a planning organisation, renders technical co-operation in the discussion, preparation, carrying out and periodic adjustment of development plans and programmes. The group comprises two representatives from the workers, two from the industrialists, one from the farmers and cattle owners, one from the merchants, one from the banks and financial organizations, and one from the universities.

(d) The Ministry of Development

The Ministry's functions are to:

(i) Make and administer Government import-export policy;

(ii) Make and administer Government policy with regard to manufacturing industry and all forms of trade;

(iii) Make and administer Government policy on public, municipal and regional housing and services, co-ordinate the separate plans and establish guidelines for their carrying out;

(iv) Administer Government policy regarding road, rail, river and coastal transportation, and regulate services;

(v) Register industrial property; and

(vi) Perform other duties designated by law.

Within the Ministry of Development, dealing with the industrial development of the country, is the Industrial and Domestic Trade Division whose functions are to:

(i) Plan short, medium and long term measures to promote the development of manufacturing industry;

(ii) Study and resolve problems affecting the normal process of industrialization;

(iii) Analyse the industrial structure of the country with a view to obtaining harmonious and balanced progress in industrialization;

(iv) Study and plan possibilities for the industrial development of different regions, in co-ordination with the Ministry's other technical divisions;

(v) Arrange supervision of the assembly industry, in co-ordination with the National Inspectorate of Imports, and oversee the carrying out of the arrangements concerned;

(vi) Co-ordinate with the Foreign Trade Division and the National Inspectorate of Imports, studies leading to import substitution;

(vii) Study and co-ordinate with the appropriate bodies the manufacturing investment plans prepared by the other public organizations, in order to achieve greater benefit and utilization of the resources available; and

(viii) Decide the best use of inputs.

(e) Institute of Technological Investigation

This is an autonomous organization managed by its own Governing Board and Director. Its sections specialise in applied chemistry and the development of new products; chemical products for agriculture; quality control and analysis; engineering and economy. In conjunction with the United Nations Special Fund, it also has charge of a technical assistance programme for small industry intended to:

(i) Offer technical assistance in the development of efficient processes leading to better use of raw materials and equipment;

(ii) Aid in setting up adequate quality control systems to obtain uniform and acceptable standards in the sector;

(iii) Open up possibilities for the development of new products according to demand, existing raw materials and domestic capital and manpower;

(iv) Develop suitable information techniques, printed and visual, especially in those fields where knowledge is incomplete;

(v) Aid private or official organizations presently supervising industrial development to raise productivity;

/(vi) Co-ordinate

(vi) Co-ordinate investment in small and medium industry with the agencies of industrial development or of government or private credit; and

(vii) Train the technical personnel needed to maintain a level of research appropriate to the needs of each industrial sector.

The Institute is able to offer services in the following fields:

(i) Setting up new industries

- Selecting possible new industries, after prior studies or by undertaking special research;
- Conducting the necessary research to create new industries of economic importance based on natural, agricultural or industrially utilizable resources;
- Discovering possibilities for new industries based on byproducts or waste from established industries;
- Undertaking highly practical studies and investigations on a strong economic and technical footing for domestic or foreign investors, banking institutions and government organizations;
- Providing ways of adapting economic and technical processes used in other countries to Colombia's needs; and
- Undertaking technico-economic studies on the location of new plants.

(ii) Aid to existing industries

- Furthering research and applying engineering advances in existing products to avoid waste and recover byproducts;
- Conducting research and adapting engineering developments which may improve the production and control of raw materials in order to obtain high quality products at low production cost;
- Furnishing experts to analyse technical difficulties in industry, for consultation and for assessment;
- Assessing problems of modernization, mechanization, quality control, flow lines and personnel training;
- Aiding in the assessment of production costs, inventory planning and control, and production programmes;

/- Advocating

- Advocating the rationalizing of production by means of efficient use of material, work simplification, planning and maintenance control; and

- Suggesting investments in equipment and machinery, and the proper capacities to obtain maximum return.

(iii) Analysis

- Operating a special laboratory with impartial and confidential analyses for industry, private parties and the Government;

- Setting up standards, specifications and analytic procedures for the evaluation of domestic and imported products; and

- Widening the use of technical libraries by those concerned with agricultural or industrial matters.

(iv) Work of the Institute

Some of the many investigations carried out by the Institute are:

- Design of a plant to produce tannin in the form of Divi-Divi powder;

- Manufacture of citric acid from cane juice; plant design and working out of the most favourable conditions for fermentation;

- Development of a process to obtain a concentrated juice from curuba (one of Colombia's most important fruits);

- Production of hard fibres using various native plants;

- Design of a series of agricultural implements for animal trastion;

- Utilization of Thomas furnace slag as a fertiliser for various types of soil;

- Production of isolated proteins, using oil cake as raw material;

- A study of markets for the Colombian chemical industry;

- A study of markets for plastics in Colombia;

- Small-scale storage of potatoes by the method of semi-underground silos.

/Chapter V

Chapter V

POLICY MEASURES FOR INDUSTRIAL DEVELOPMENT

1. Tariff protection against foreign competition

(a) Tariff features and protection

Tariff protection authorized to industry is mainly concentrated in consumer goods, and to some extent in intermediate goods, as appears from the following arithmetic averages of import duties taken from the tariff in force (decree N° 3166, 1964):

	(Percentage)
Food products of animal or vegetable origin	75
Tobacco	100
Mineral products	15
Inorganic chemicals and allied products	25
Organic chemical products	30
Pharmaceutical products, vitamins, hormones, etc.	13
Fertilizers	1
Blasting powder and explosives	50
Photographic and cinematographic products	25
Educational films	0
Plastic and artificial materials, ethers, esters, resins and their products	85
Leather, furs and manufactures thereof	110
Pulp, paper and paperboard	45
Fibres and textile products	45
Carpets, cord, knitted wearing-apparel	150
Footwear, umbrellas, hats	160
Non-metallic mineral manufactures	95
Cast iron and steel	30
Copper, nickel, aluminium, zinc, tin and manufactures thereof	30
Tools	30
Knives and cutlery	70
Machinery and apparatus, electrical equipment	25
Transport equipment	68
Medical and surgical equipment and apparatus	30
Optical, photographic and cinematographic instruments and apparatus	100
Clocks and watches	70
Musical instruments and television sets	80
Firearms and ammunition	80
Toys, games, recreation and sporting goods	120

/(b) The regimen

(b) The regimen of exemptions

In 1960, law Nº 81, and in 1961, its regulatory decree Nº 1393, set up protective tax measures for industries meeting the requirements for "basic industries or industries complementary to iron production".

"Basic industries" are defined as those which use not less than 60 per cent of domestic raw materials and which have been judged necessary or beneficial to the national economy by the Council on Economic Policy and Planning. "Industries complementary to iron production" are those manufacturing industries utilising products of Acerías Paz del Río, or equivalent imported materials to the value of 50 per cent or more of the raw materials they consume. If the activity is carried on by a corporation or a limited liability company, exemption is granted from the basic income tax and the complementary excess profits tax. Enterprises other than corporations or limited liability companies are exempt from the basic income tax if they operate under the supervision of the Inspectorate of Corporations (Superintendencia de Sociedades Anónimas). Natural persons whose accounting headings distinguish transactions related to basic industry or industry complementary to iron production operated by them, are exempt from the basic income tax and the complementary property tax. The exemptions are granted between the fiscal years 1960 and 1969, inclusive.

The following are considered basic activities:

- The mining of asbestos, sulphur, carbon; production of coke and recovery of tar and light oils; manufacture of chemical products from tars; preparation of chemical products from natural gas or petroleum, gas from petroleum refineries and other by-products of domestic petroleum refining; chemical processing of sugar cane alcohol to obtain primary chemical products;
- Manufacture of sulphuric acid or calcium carbide using 100 per cent domestic raw materials;
- Manufacture of alfa-cellulose chemical pulp using at least 60 per cent domestic raw material; manufacture of pulp for paper using 90 per cent domestic material;

/ - Manufacture of

- Manufacture of fertilizers, fungicides, insecticides and herbicides, using not less than 60 per cent domestic raw materials;
- Manufacture of wool tops using at least 60 per cent of domestic raw material;
- Production of non-cellulose artificial fibres using 60 per cent domestic raw material;
- Production of pig iron from domestic raw material;
- Production of iron or steel using at least 60 per cent domestic raw material;
- Production of aluminium, copper, zinc, or lead from domestic raw material;
- Manufacture of machinery or machine tools using at least 60 per cent domestic raw materials;
- Development of marine and river fishing, and
- Production of tanning extracts, etc., of vegetable origin.

Besides granting income tax exemptions to many Colombian industries, in 1964, the Government also authorized, by decree N° 1659, the benefit of customs exemptions on imports to the mining, petroleum, refining, fertilizer and metallurgical industries. The exemption is not granted if the products are produced in the country in sufficient quantity and at suitable quality.

Exemptions for imports by the government sector were laid down in 1964 by decree N° 709, which limits them almost exclusively to capital goods although including intermediate and consumer goods when the enterprises are commercial or industrial, or for health and welfare organizations, or in the case of foods, essential to the bulk of the population. Exemption requires the approval of the Administrative Planning Department.

Domestic industry is also protected when producing exclusively for export. Under the conditions envisaged in the "Plan Vallejo", two kinds of contract can be made between the manufacturer and the Ministry of Development: (a) For import of raw material to produce goods exclusively for export, (b) For import of equipment needed for expansion to raise production of export goods.

/According to

According to this system, the exporter pays at a rate of 1/6 of 1 per cent the total value of the goods exported. On the other hand, the Bank of Colombia, regulates, under Plan Vallejo, the purchase rate of the resulting foreign exchange in such a way that the total value of exports is paid at the rate of 13.50 pesos to the dollar if the product exported contains less than 50 per cent foreign raw materials.

Raw materials imported for the manufacture of export goods are not subject to customs taxes. The taxable liquid income resulting from exports under Plan Vallejo is exempt from payment of income tax (law N° 81 of 1960).

It now seems that Government policy is tending towards liberalisation from import duties of a considerable number of items when the tariff incidences are 30 per cent or more, as long as the commodities are paid for in intermediate market dollars at the exchange rate of 13.50 pesos to the dollar.

(c) Tariff alterations

The Customs Policy Council (Consejo de Política Aduanera) may alter the import-export tariff rates within the limits set by decree-law N° 3168 when these are too high or so low as to be ineffective, and may set official prices on which ad valorem duties must be paid in cases where unfavourable conditions so demand. Generally this would occur in proved instances of "dumping" harmful to the protection of a particular item of domestic production. Such action must have the approval of the Administrative Planning Department and the Board of Foreign Trade (Junta dé Comercio Exterior).

The Customs Policy Council may raise or lower import-export duties once only by not more than 30 per cent of the c.i.f. value of the merchandise concerned, however, unlimited changes can be made for the purpose of increasing Latin American trade.

The Customs Council Policy can also alter tariff rates for motor vehicles (chapter 87) and for the products comprised in chapters 22 and 24, when this is to the general benefit of the country.

The tariff arrangements with ALALC differ interestingly from the general tariff structure which took effect in 1965.

/Whereas the

Whereas the latter has entirely eliminated the specific tax and retains only the ad valorem tax, importations from ALALC continue to be subject to both. Nevertheless, the main difference is that in products of the Latin American Free-Trade Zone one or other of the taxes has been eliminated, if not both, in probably more than 50 per cent of cases. Relatively high duties remain only in such special cases as the following: various kinds of cheese, mussels, crabs, vanilla, whale and fish oils and oil from coffee husks, sunflower and flax oil-seed cakes, earths, ochres, distilled alcoholic beverages, all of which are taxed at above 30 per cent, and in the case of chemical materials for the pharmaceutical industry, where duties are below 20 per cent.

In spite of the low level of customs duties, trade suffers from the treat of the unlimited schedule referred to above, which was introduced as an emergency measure to counteract the increasingly heavy imbalance in trade between Colombia and the other countries of ALALC.

One of the main purposes of the customs tariff is to protect domestic industry and the one outstanding effect of this has been the substitution of imports. Considerable progress has been made as regards consumer goods but a great deal remains to be done in the fields of intermediate goods, raw materials and capital goods. However the importance of capital goods to economic development has recently spurred their production to some extent. Real advance will only be made through the expansion of markets.

Customs tariffs may help to form such markets but it is essential that additional measures be taken. The Government has recommended to ALALC the integration of sub-regional economic blocks.

The tariff system described has created a situation exclusively favouring import substitution. Trade policy has to follow it by promoting exports and raising the efficiency of domestic industry. Changes in the tariff structure are being studied which will offer an adequate, rather than an absolute, margin of protection.

Other measures, similar to customs taxes, are also applied, although apparently not for the purpose of protecting domestic production. They often result from the acute shortage of foreign exchange, the

/anxiety to

anxiety to hold back growth of the means of payment, the desire to make best use of the scarce foreign exchange income, etc. Among the most important measures are:

(i) The regimen for imports. Under this regimen there is a list of free import products, another list of products requiring a previous license, and a third of products whose importation is prohibited. Evidently the effect of placing an item on these lists can be more restrictive in effect than raising the tariff.

(ii) Prior deposits. This measure requires importers to deposit with the Bank of Colombia for a period often as long as 180 days, a percentage of the f.o.b. value of the merchandise in pesos ranging from 10 per cent to 120 per cent (Dec. 23, 1964, decree N° 3168). In addition to its restrictive effect, such freezing of funds avoids excessive rises in the monetary supply.

(iii) The exchange regimen. In September 1965, decree N° 2322 set up two exchange rates, one at 9.00 pesos to the dollar, called the preferential rate, the other at 13.50 pesos to the dollar, called the intermediate rate.

The 9.00 pesos exchange rate is used in the importation of pharmaceutical products, requirements for the protection of health and raw materials for their manufacture, together with the instruments, machines and apparatus of medicine, surgery, ophthalmology, orthopaedy, etc.; seeds for sowing, agricultural machinery and implements, fertilizers, fungicides, etc., bars and sheets of iron or steel for agricultural tool factories; passenger transport motor vehicles, spare parts, aviation gasoline; newsprint, wool, rubber, firearms, ammunition, and milled wheat.

All other goods are imported with intermediate market dollars brought from the Bank of Colombia at the 13.50 pesos rate.

(iv) The setting up of additional import requirements. Resolution N°9 of June, 1965, authorizes the Board of Foreign Trade to institute further requirements. These are so numerous as to seriously restrict imports.

The elements of this control system may vary, but on the whole there persists a relatively high degree of controls and restrictions on imports mainly as a result of the complete impossibility of meeting all of the country's import needs, a consequence of such complete dependence on coffee exports.

/(v) Co-ordination

(v) Co-ordination of the measures. It might seem that to co-ordinate the training and carrying out of these measures would be difficult and in part this is so, owing to the considerable number of Government organizations concerned with foreign trade. For example, the Customs Policy Council sets tariffs, but it is the Board of Foreign Trade which really determines trade policy. On the other hand the Monetary Board (Junta Monetaria) has the right to alter deposits in the light of implications they may have for the monetary supply. Co-ordination is achieved because the Boards and Councils are composed virtually of the same persons: the Ministers concerned with economic affairs and the Head of the Administrative Planning Department.

2. Industrial export promotion policy

The very acute shortage of foreign exchange and the fall in international prices of coffee, the principal export product has made it necessary for the Colombian government to spur the export of new manufactured products. Special provisions have been made ranging from the rapid handling of export procedures to the creation of exporting organizations.

(a) Major, minor and sample exports

In 1959, law N° 1 set up the categories of major, minor and sample exports. Included as major exports are coffee, bananas, raw hides and precious metals, the remaining products are classified as minor exports. Sample exports are those whose f.o.b. value at the port of embarkation does not exceed one hundred dollars.

In 1962, article 8 of law N° 83 modified this system, excluding bananas, platinum and leather from the list of major exports and making the value of these commodities payable through the Bank of Colombia at the exchange rate for minor exports.

In 1964, decree N° 1734 adopted under emergency powers, in article 16, clause 26, fixed the purchase rate of foreign exchange arising from exports other than coffee as the average rate registered in free market banking during the previous week, in accordance with the provisions of article 46. This regulation was retained until quite recently when the exchange rate returned to 13.50 pesos to the dollar.

The difference, then, between major and minor exports is in terms of volume, and the purchase rate of the resultant foreign exchange.

(b) Export stimuli

The various stimuli that have been used to encourage exports may be classified as follows:

(i) Exchange rate. The Bank of Colombia buys foreign exchange arising from minor exports, wholly or in part, at the decision of the Monetary Board, and in accordance with the exchange rates which it sets from time to time. At present this rate stands at 13.50 pesos to the dollar, 4.5 pesos higher than the price of the exchange certificates with which raw materials and essential finished goods are imported.

(ii) Taxation. In accordance with law N° 81 of 1960 and its regulatory decree N° 1394 of 1964, the taxable liquid income arising from exports is exempt from the tax on liquid income paid by the exporting enterprise, which is 40 per cent of the gross sale of products exported. Excluded from this exemption are coffee exports not industrially processed, petroleum and its products, bananas, raw hides and precious metals.

(iii) Tariff. These comprise: (a) Plan Vallejo I, (b) Plan Vallejo II, and (c) Plan Vallejo for bonded warehouses.

Plan Vallejo I encourages exports by means of a contract between the importer and the Ministry of Development - through the Inspectorate of Foreign Trade (Superintendencia de Comercio Exterior) - by which raw material or equipment for the manufacture of export products can be imported without customs duties or prior deposits.

The importation of equipment is subject to proof by the enterprise of its efficiency, the existence of export markets, its financial capacity, and to a guarantee regarding the utilization of the equipment for exportable production.

The plan came into force in 1959 under law N° 1, articles 25 following, together with decree-law N° 1734, in 1964, articles 25 following.

Plan Vallejo II was enacted in 1964 by decree-law N° 1734 to allow the possibility of importing in free-market currency without customs duties, deposits or previous license, goods of the same type, quantity and quality as those forming part of exported products, provided that the respective export has been proved.

Plan Vallejo for bonded warehouses allows entrepreneurs who have available equipment which is under-utilized because of shortage of raw material or lack of domestic consumption, to import raw materials needed for export manufactures without payment of customs duties or prior deposits.

Among regulations which affect imports on this plan are the financing from abroad of the cost, insurance and transportation of the imported raw material over a period which will allow payment with earnings from the commodities exported; and a special registration of import approved by the Ministry of Development to determine the arrangements as contracted under Plan Vallejo I and also to insure that the raw materials are used in the manufacture of exportable products.

Each enterprise may establish a bonded warehouse on its own grounds provided that it has fulfilled the necessary requirements, and may request the Ministry of Development for inclusion in the Plan.

(iv) Financial. There are a number of systems by which the Colombian exporter can obtain credit on favourable terms, with interest and discount rates lower than the commercial rates, or from special funds for financing operation or importing elements needed in the production of merchandise for export.

One such system is the Private Investment Fund (Fondo de Inversiones Privadas - FIP) of the Bank of Colombia which is made up of counterpart funds in national currency; foreign exchange credits granted to FIP, and credits received by the Bank and allocated to the Fund. FIP's operations are carried on by banks affiliated to the Bank of Colombia.

Besides this, in 1962, article 60 of law N° 83 allowed the Bank of Colombia to authorize short-term loans to finance exports of products other than petroleum, gold and coffee, up to an amount provided by a special fund comprising all or part of the foreign exchange remitted from the minor exports concerned.

(v) Importing. In 1964, article 3 of decree-law N° 1734 authorized the Board of Foreign Trade to set up priorities as regards the import of equipment, spare parts and raw materials. In 1965, in its resolution N° 009, the Board defined the scope of these priorities, making it clear that in granting licenses it would give preferences where proof of having exported was submitted.

/(vi) Unrestricted

(vi) Unrestricted export guarantee. The Inspectorate of Foreign Trade has guaranteed not to restrict export of agricultural manufactures or products of the mining industries, provided that a previous contract has been made with this body or that the export contracts made with foreign persons or concerns have been registered.

(vii) Reimbursement periods. In 1965, resolution N° 22 of the Monetary Board set 90 days as the period for reimbursement to the Bank of Colombia of foreign exchange arising from minor exports. Some exceptions were however made. Nevertheless, the Inspectorate of Foreign Trade is authorized after study of the particular case, to extend the reimbursement periods for exports that require longer terms of payment.

3. Credit policy

Banking in Colombia caters mainly to the financing of short and medium-term loans. In addition to the commercial banks, two State banks lend funds to industry for the same periods, the Citizen's Bank (Banco Popular) which gives personal credit, and the Agrarian Bank (Caja Agraria) which basically serves agriculture. Both have sections specializing in the needs of medium and small industry but the resources available for this are small compared to the need.

Commercial banks furnish 54 per cent of domestic credit granted by financial institutions. Short-term loans make up 77.9 per cent of their loans, medium-term 17.7 per cent and long-term only 4.4 per cent. Banks have traditionally channelled their funds towards trade (33 per cent of assets) but industry's share has been increasing (30 per cent of banking credit).

Many legal provisions have been made regarding credit. In 1950, decree N° 384 allowed commercial banks to make loans for periods up to 5 years for building works or for expansion of economic development projects such as in mining, agriculture and urban building. Such loans through commercial banks may be discounted by the Bank of Colombia at an interest rate below the normal for commercial operations, and the interest charged by the banks will be at least one point less than the usual for long-term amortization of banking loans. In 1963 a modification of decree N° 384 increased to 10 years the periods of these loans.

/In 1955,

In 1955, decree N° 1564 allowed commercial banks to issue industrial credit bonds to finance the expansion of factories or industries, or the formation of new industries judged beneficial to the national economy by the Monetary Board. The period of such bonds may extend to 10 years and the rate of interest will not exceed 7 per cent annually. The value of these loans may not amount to more than 60 per cent of the machinery, land and buildings given as guarantee. Commercial banks are obliged to purchase and hold industrial bonds to an amount not less than 5 per cent of their initial or final callable capital.

Another valuable credit instrument permits the Government to issue national bonds in dollars. Although enacted in 1959 by law N° 29, it has not yet been put into effect. The proceeds from the sale of these bonds is to be used to promote an economic development fund which would be administered by the Bank of Colombia for specified purposes only, for example to grant loans to public bodies and private persons exclusively for the foreign currency needed in the building of electric plants, power grids, equipment and materials for irrigation and drainage systems, and the building and expansion of factories whose products will substitute imports or be exported. Amortization periods on the loans will be as much as 8 years.

The law requires that loans from the Economic Development Fund (Fondo de Desarrollo Económico) give preference to the encouragement of import substitution industries or those producing for export whose establishment has been recommended by studies carried out by the Institute of Industrial Development (Instituto de Fomento Industrial) and the Institute of Technological Research (Instituto de Investigaciones Tecnológicas).

Commercial banks are also the main source of medium-term credit and may apportion up to 15 per cent of their deposits for loans of from 1 to 10 years. The Monetary Board's latest credit measures afford banks the benefit of special reductions in their cash reserve liabilities if they raise to 36 per cent the proportion of their assets allocated to development loans. The interest on development loans is restricted to 9 per cent for periods over 3 years, and to 8 per cent for periods of 1 to 3 years. The total for development credits rose 11 per cent in 1963 over the preceding year.

Insurance Companies are also an important source of medium-term loans since they are authorized to allocate part of their resources for investments other than the compulsory. Many industries in their search for credit, resort to the companies where they are insured. The loans are from 1 to 2 years and carry an interest rate of 15 per cent.

Among sources of long-term credit are the financial corporations, instituted in 1960. Besides granting credit to industry, these organizations subscribe new stock issues and invest in corporation capital. The five financial corporations that have been formed have made very rapid progress and been surprisingly successful. They augment their own capital with domestic and foreign loans, making bond issues and rediscounting their credit notes in the Security Issues Bank (Banco Emisor). Three of these corporations have received foreign loans from the International Finance Corporation. About 90 per cent of their assets are allocated to industry.

Long-term loans are also obtainable from the Private Investment Fund - FIP - which finances exclusively private investments of especial benefit to the national economic development, particularly those which act to diversify and promote exports. The Fund is made up of counterpart in National currency, and from foreign credits granted to it. Loans are generally limited to three million pesos although much larger amounts have been granted. The periods are 10 years for industrial and 5 years for agricultural projects. Interest rates are 6 per cent up to 3 years, 9 per cent from 3 to 5 years, and 10 per cent over 5 years. Any enterprise may make use of FIP if it presents a plan in the form required and meets the necessary credit conditions.

Long-term industrial loans are also made by the Esso Investments Company ("Inversiones Esso") which is owned 100 per cent by the International Petroleum Corporation of Standard Oil and which has available 55 million pesos to participate as a minority stockholder in new industries or finance the expansion of existing enterprises (provided that they have no connexion with petroleum). Up until now this company's policy has been to operate only with domestic investors.

/The cost

The cost of credit is high in Colombia. The best interest rate on loans for less than 150 days is 9 per cent and for more than 150 days, between 10 and 12 per cent. Overdrafts for less than two weeks are charged 11 per cent and more than two weeks 13 per cent. Private Investment Fund loans vary between 8 and 10 per cent according to the period. However, at least 1 per cent must generally be added to these rates to cover commissions and other credit control charges, project studies, etc. The requirement of prior deposits of from 10 to 120 per cent on all kinds of imported merchandise, which are not returned to the importer in less than six months, indicate that financial costs are a heavy burden on production costs. Almost all industries have resorted to foreign credits to finance their import deposits because of the difficulty of obtaining them in the local commercial banks. The exchange risk involved is a heavy financial burden.

4. Taxation policy as a means of promoting and channelling industrial investment

The tax incentives used to promote industrial development are the following:

(a) Reserves for protection and recovery of assets

Up to 15 per cent annually of the liquid trade profits for the previous tax year (the same profits on which appropriation of the legal reserve is based) are set aside by the corporations for the protection and recovery of assets, provided that these are in fact appropriated and entered on the books, verification of which accompanies or is included in the income and property declaration. The amount of the reserve can in no case exceed 15 per cent of the original cost of the depreciable assets comprising machinery and industrial equipment, and purchased before 1 June, 1957. In 1959, article 17 of decree N° 437 made exempt the amount of profits for the taxable year appropriated by corporations as reserves for protection and recovery of assets comprising machinery and industrial equipment purchased before 1 June 1957 and in existence on that date. This exemption may not exceed 15 per cent of the liquid trade profits for the previous financial year (those on which appropriation of the legal reserve is based) nor 15 per cent annually of the original cost or purchasing price of depreciable assets referred to in the preceding paragraph. This exemption expires when the original cost has been entirely amortized.

(b) Economic development reserves

In addition to reserves required by law or by their statutes, corporations may set aside special economic development reserves of up to 5 per cent annually of the liquid trade profits (on which appropriation of the legal reserve is based) with the object of increasing the output of materials and merchandise which substitute imports.

The National Council on Economic Policy and Planning specifies the items of benefit to the economy in which economic development reserves may be invested. The reserves are treated as untaxed profit when it is verified that they have been appropriated, entered on the books and invested in the activities referred to.

These reserves are exempt only if formed within the ten year period starting in 1960. In 1963, resolution 1 of the National Council on Economic Policy and Planning directed that for purposes of setting up the special economic development reserve, the "almost exclusive" use of domestic raw materials must be interpreted as meaning not less than 80 per cent.

Decree N° 3257 specifies that the following may benefit from the exemption on special economic development reserves established in 1960 by article 110 of Law N° 81:

(i) Corporations open to full supervision;

(ii) Other companies under supervision of the Inspectorate of Corporations, and

(iii) Natural persons involved in activities which benefit from the exemption.

Income appropriated as economic development reserves is exempt provided that the reserves are used to increase production of raw materials and merchandise which substitute imports or whose promotion benefits the national economy.

/The amount

The amount of the exemption cannot exceed 5 per cent of the liquid trade income in the tax year. This income must be calculated according to the existing corporation rules which determine the base for the legal reserves.

The special economic development reserves can be made up annually from 1961 to 1970 as deductions from the liquid trade profits from 1960 to 1969.

In 1961, resolution 1 of the Council on Economic Policy approved the following activities for the investment of economic development reserves:

- Growing of wheat, hops, cocoa, and rubber
- Growing of sesame, groundnuts, soya beans, African palms and coconut palms
- Wool production
- Refining of crude tallow, or fresh domestic tallow
- Asbestos mining
- Manufacture of calcium carbide
- Manufacture of chemical products from natural gas or petroleum; residual gas from petroleum refining; other refinery by-products
- Manufacture of alcohol from cane sugar
- Manufacture of chemical products from acetylene
- Manufacture of alpha-cellulose chemical pulp
- Manufacture of products needed in the production of herbicides, insecticides or fungicides
- Production of natural and synthetic hormones, stearoids and alkaloids
- Manufacture of natural or synthetic vitamins; pure antibiotics
- Manufacture of simple, nitrogen or phosphate chemical fertilisers
- Manufacture of pulp for paper
- Manufacture of synthetic resins
- Manufacture of plate glass
- Production of aluminium, copper, zinc, lead or other non-ferrous metals
- Manufacture of part-units or loose parts of vehicle motors
- Manufacture of agricultural implements for mechanical traction
- Manufacture of internal combustion engines or part-units or loose parts thereof
- Manufacture of centrifugal pumps
- Manufacture of sealed refrigeration units
- Manufacture of machine-tools other than assembly
- Manufacture of padlocks and locks from iron and steel, and iron or steel sheet
- Manufacture of river or sea-going boats
- Manufacture of three-phase transformers

In 1962, resolution 2 added:

- Manufacture of products, unit-parts or loose parts by stamp-forging.

In 1962, resolution 2 added:

- Mining of carbon.

In 1963, resolution 3 added:

- Production of sodium sulphite, bisulphite and hydrosulphite.

In 1963, resolution 4 added:

- Cultivation of light tobacco.

(c) Customs tax exemptions for basic economic development industries

Exemptions for basic economic development industries are described above under tariff protection.

(d) Income tax exemptions for investment corporations and funds

In 1960, article 1 of decree N° 2368 defined investment administration corporations as those whose sole purpose is to subscribe funds publicly in order to set up or administer, in accordance with the decree's provisions, one or more investment funds; according to article 2, these may be commercial or corporation funds.

Article 20 provides that the fund or funds organized or administered by the investment societies will not be subject to income or complementary taxes, but that distributed funds will be treated as personal income of the recipients.

In 1960, article 1 of decree N° 2968 also authorized the setting up of mutual investment funds by profit-seeking enterprises with a capital exceeding 500,000 pesos and in which at least 20 persons are employed. Article 21 exempts these funds from income and complementary taxes. The beneficiaries are likewise exempt from property tax on their holdings in the fund, and from income tax on profits arising or profits obtained on liquidating their investment. The enterprises may deduct for tax purposes the amount of their contributions to the fund.

5. Direct State promotion through public or mixed enterprises

(a) Institute of Industrial Development

The Institute of Industrial Development (IFI) was set up in 1940 by legislative decree N° 1157 to promote the establishment and broadening of basic industrial enterprises which private capital and initiative alone had not succeeded in developing satisfactorily.

According to the decree, Government aid to establish and expand nationally important industries would be given through IFI.

Shares acquired in such enterprises could be sold to private bodies once IFI's participation was no longer needed. The law established a minimum capital of 4 million pesos, 3 million contributed by the Government and 1 million by the Central Mortgage Bank (Banco Central Hipotecario), and allowed IFI to invest up to 50 per cent of its capital in industrial bonds.

In 1963, law N° 16 assigned IFI the functions of a financial corporation giving it the benefits established in 1960 by decree-law N° 2369. A financial corporation is defined as a credit establishment organized in accordance with the provisions of the decree referred to for the main purpose of promoting the establishment, reorganization and transformation of enterprises, participating in their capital, or procuring the participation of third parties and granting them credit.

Law N° 16 also authorized the Government to contribute up to 200 million pesos to strengthen IFI's financial position. So far only 4.75 of this amount has been received.

On 12 July, 1965, article 1 of decree N° 1822 assigned IFI to be the Government Fiduciary Agent in granting loans from counterpart funds in national currency deriving from credit granted to the Government by the United States' International Development Agency. With these funds, IFI will grant loans or make investments, not repayable in Colombian pesos, for economic and social development purposes.

Thus in 1965, decree N° 2324, sanctioning the issue of Economic Development Bonds to the amount of 600 million pesos, authorised the Government to negotiate the trust with IFI. The proceeds of this bond issue will finance plans for economic development and social improvement.

(b) Enterprises established or financed by IFI

(i) Acerías Paz del Río, S.A. IFI promoted and studied this enterprise and in conjunction with the Government and some private parties, founded it as a Corporation on 17 September, 1948, with an authorized capital of 100 million pesos. Paid-up capital amounted to 8,459,150 pesos of which the Institute contributed 6,520,000, mainly for:

(a) Deposits of iron, lime bearing marl and coal;

(b) The Sogamoso-Belencito railway, a chemical laboratory, furnace for coking tests, brick factory, employees' housing, building works, etc.

(c) All geological, technical and economic studies made by domestic and foreign firms, including the general study and survey for the plant, The enterprise presently produces 181,000 tons of steel annually with a monthly value of some 10 million pesos and saves the country 12 million dollars a year in foreign exchange. It employs 7,000 workers and its capital has risen to 600 million pesos.

(ii) Industria Colombiana de Llantas, S.A. Icollantas. This Corporation was formed on 20 November 1942 with a capital of 1.5 million pesos. The founding members were the Institute of Industrial Development, the Compañía de Cementos Portland Diamante, the Consorcio de Cervecerías Bavaria, the Empresas Unidas de Energía Eléctrica, the Fábrica de Cemento Samper, and The B.F. Goodrich Company which subscribed and paid 25 per cent of the total capital.

After an extensive study carried out by IFI and the Goodrich Company, a contract was signed in which the latter agreed to design a tyre factory adequate for the country's needs and to make available its know-how for as long as needed.

This enterprise today has a capital of 42 million pesos and has saved the country 72 million dollars in foreign exchange during its 22 years of operation. By 1953, IFI had ceded all of its stock to private bodies.

(iii) Planta Colombiana de Soda. On 10 June 1941, the Bank of Colombia and IFI signed a contract by which the Institute, at the behest of the Government and the Bank, would undertake and direct all necessary studies and projects to erect a plant for the manufacture on an industrial scale of chemical products derived from sodium chloride, such as caustic soda, sodium carbonate, bicarbonate, etc.

The Government delegated the technical direction and building administration to IFI. The H.K. Ferguson Company of the United States, designed the plant and in 1944 building began.

Present production is as follows:

Sodium carbonate	3,000 tons per month
Caustic soda	900 " " "
Sodium bicarbonate	240 " " "
Electrolytic caustic soda	1,200 " " "
Chlorine	1,000 " " "
Refined salt	12,000 " " "

Installation of the Soda Plant at Cartagena will provide an exportable surplus of more than 30,000 tons annually of sodium carbonate and caustic soda, beginning in 1966.

(iv) Celulosa y Papel de Colombia S.A., Pulpapel. This enterprise was set up in 1957 with a capital of 6.7 million pesos subscribed in equal parts by the Institute of Industrial Development, Cartón de Colombia, S.A. and the Container Corporation of America, for the purpose of producing 100 tons per day of kraft pulp from tropical woods. Raw material supplies were assured by obtaining forestry concessions both on the Pacific coast and in Magdalena.

In 1962 and 1963 the three above entities made their capital contributions and in addition, domestic and foreign credits were obtained for the setting up of the Yumbo plant in Valle. The Institute loaned the guarantee for the 1.4 million dollars credit granted to the enterprise by the Interamerican Development Bank for the purchase of equipment, machinery, and the beginning of engineering work.

In 1964, the Institute sold its holdings in the company, its mission as development promoter in this important field having been accomplished.

(v) Other industries. Table 31 lists other industries which IFI has helped to promote or finance.

(c) Enterprises formed or financed by IFI in which it retains stockholdings

(i) Forjas de Colombia, S.A. IFI's co-operation was the determining factor in setting up this enterprise in 1963. After careful analysis of the project, taking into account its importance to the national economy, the Institute contributed 10 million pesos and loaned the German firm Rheinstahl, the guarantee for credit amounting to 87 million pesos for the supply of equipment and machinery. IFI's contribution amounts to 10 per cent of the paid-up capital of the enterprise which produces forged parts for agricultural machinery.

/Table 31

Table 31

COLOMBIA: INDUSTRIAL ENTERPRISES WHICH HAVE RECEIVED FINANCING FROM THE INSTITUTE OF INDUSTRIAL DEVELOPMENT

(Thousands of pesos)

Enterprise	Year	Capital	IFI contribution	Percentage
Cía. Agrícola y Azucarera, S.A.	1941	350,0	150.0	42.9
Cía. Colombiana de Levaduras, S.A.	1941	80.0	40.0	50.0
Cía. Colombiana de Taninos, S.A.	1941	1 000.0	75.0	7.5
Cía. de Productos Alimenticios El Papagayo, S.A.	1941	135.0	60.0	44.0
Empresa Siderúrgica, S.A. Medellín	1941	2 000.0	230.0	11.5
Explotadora Nacional de Grasas	1941	150.0	40.0	26.7
Industria Colombiana de Leches	1941	440,0	224.4	51.0
Industria del Mangle, S.A.	1941	1 260.0	388.0	30.8
Cía. Nacional de Maderas La Industria	1942	791.8	94.8	12.0
Fábrica Colombiana de Hilados de Lana, S.A.	1942	400.0	160.0	40.0
Industria Colombiana de Vidrios	1942	500.0	142.9	28.6
Industria Fiquera Colombiana S.A.	1942	176.1	50.0	28.4
Central Metalúrgica del Tolima	1943	310.0	201.5	65.0
Cía. Colombiana de Zinc, S.A.	1943	150.0	50.0	33.3
Industria Minera y Metalúrgica Colombiana, S.A.	1943	290.2	176.3	60.7
Unión Industrial de Astilleros	1943	2 054.8	387.0	18.9
Cía. Industrial de Caldas, S.A.	1944	100.0	50.0	50.0
Industria Colombiana de Abonos	1945	866.1	250.0	28.9
Industria Química Colombiana	1946	350.0	219.0	62.6
Industria Química de Paipa, S.A.	1946	647.3	426.0	65.8
Maderas La Industria	1946	791.8	94.9	12.0
Industria Colombiana de Pesca Marítima	1941	2 230.0	750.0	33.6
Abastecedora de Maderas Ltda.	1950	86.0	36.0	41.9
Cía. Colombiana de Celulosas, S.A.	1950	378.0	43.5	11.5
Corporación Carboneras Colombianas	1950	242.0	100.0	41.3
Asbestos Colombianos, S.A.	1953	1 500.0	398.9	26.6
Granito y Mármoles, S.A.	1953	500.0	150.0	30.0

/(ii) Cementos

(ii) Cementos Boyacá, S.A. The company was formed in 1955 to carry out an IFI project for a cement factory using cinders from the Acerías Paz del Río blast furnace.

IFI contributed 6,600,000 pesos to the paid-up capital of 18,700,000 pesos, and has made loans amounting to 3,000,000 pesos which have played an important part in the success of the enterprise. In 1964 net profits were 1,263,381 pesos.

(iii) Fábrica de Grasas de San Andrés. In 1959, under the terms of law N° 49, the Government received title to the Citizen's Bank (Banco Popular) and, under aegis of the Cooperativa Agrícola e Industrial de San Andrés, to the Fábrica de Grasas. The liabilities had arisen from the building of the factory and from administration costs while operated by the Citisen's Bank.

In 1961, the Government handed over management of the factory to IFI which, after repairing and reconditioning the plant, began production in October of that year.

The enterprise has been operating well, supplying unrefined oil to the soap industry and oil cake used in the production of animal fodder. In 1964 its sales volume was 9,000,000 pesos.

(iv) Other industries. The Institute of Industrial Development also has connexions with the following enterprises:

COLOMBIA: ENTERPRISES LINKED TO THE INSTITUTE OF INDUSTRIAL DEVELOPMENT

(Thousands of pesos)

Enterprise	Date established	Paid-up capital	IFI Contribution	Percentage
Cía Nacional de Cloro y sus Derivados, Ltda.	1942	1 000.0	990.0	99.0
Cía. Nacional de Cables, S.A.	1960	1 048.4	500.0	47.7
Sucroquímica Colombiana, S.A.	1962	10 500.0	1 000.0	9.5
Curtientes Vegetales Colombianas	1960	6 000.0	2 850.0	47.5
Industria Colombiana de Fertilizantes	1952	105 000.0	4 300.9	4.1
Fondo de Desarrollo Industrial de Santander	1954	1 123.7	272.7	24.3
Corporación de Ferias y Exposiciones	1955	3 900.0	732.4	19.0
Fábrica de Explosivos Antonio Ricaurte	1962	2 000.0	358.0	17.0
Sulfácidos, S.A.	1940	993.6	177.0	17.8

6. Manpower training programmes

The Apprentice Training Service (Servicio de Aprendizaje - SENA) is the body responsible for putting into effect programmes for the training of skilled manpower.

It is responsible for the vocational training of young workers and adults in industry, commerce, agriculture, cattle farming and mining, with a view to:

(a) Co-operating with employers and workers to create a national system of apprenticeship, workers' advancemente and rapid adult vocational training, with unified principles and methods capable of meeting the special needs of manpower in enterprises and production methods in different parts of the country;

(b) Organizing and maintaining throughout the country, either in the Apprenticeship Training Centers or in the respective enterprises, technical and practical instruction in those occupations which require a systematized training;

(c) Selecting candidates and offering vocational guidance;

(d) Organizing supplementary courses for the preparation, training, finishing and specialization of technical and management workers at all levels, and

(e) Joining in the cultural and technical improvement of workers in order to raise productivity and so elevate their standard of living.

In 1957, decree No. 0118 created SENA as a decentralized organization with its own legal status and property. In 1963, law No. 58 specified that enterprises with a capital of 50,000 pesos or more, or having 10 or more permanent workers, must allocate 2 per cent of this monthly payroll to the financing of SENA.

Constitutive decree (Decreto Orgánico) No. 0164 authorized SENA other sources of income comprising voluntary contributions, donations, inheritances, and charges imposed by the Ministry of Labour on the sale of produce from its agricultural and fishery centers, the amount of which is however small in comparison with total income.

/In 1964

In 1964 and 1965, SENA's income was about 115 and 142 million pesos respectively, 95 per cent of which came from contributions under law No. 58.

By law, 80 per cent of the funds gathered in each Department must be used for its own needs while 20 per cent finances the national administration of the Service which allocates part for its own operation and part for its regional sections and sectors of activity.

As already noted, SENA is in charge of preparing intermediate-level workers or technicians in the different economic activities and regions through specialized courses given in the Apprenticeship Training Centers. The Service has succeeded in building and staffing 39 centers in different Departments in which 101,069 trainees enrolled between 1958 and 1964, 44,527 of them in manufacturing occupations, the most important of which are: industrial maintenance mechanic, machine-tool operator, motor vehicle driver-mechanic, diesel motor repair mechanic, loom operator, installation and maintenance electrician, torch and arc welder, mason, plumber or pipe fitter, cabinet-maker, and radio and television repair worker, etc.

Besides this, the Santander Industrial University (Universidad Industrial de Santander) has a project to train personnel for medium and small industry with monthly courses dealing with such topics as marketing, accounting and costs, business administration, labour legislation, human relations, etc.

7. Technological Research

The most important body concerned with research in industrial technology is the Institute of Technological Research (Instituto de Investigaciones Tecnológicas - IIT), which has its own legal status, and its head office in Bogotá. The principal contributing members to the Institute are the Bank of Colombia, the Agricultural, Industrial and Mining Credit Bank (Caja de Crédito Agrario Industrial y Minero), the National Federation of Coffee Growers (Federación Nacional de Cafeteros), the Colombian Petroleum Company (Empresa Colombiana de Petróleos), and the Institute of Industrial Development.

/Table 32

Table 32

COLOMBIA: NUMBER OF TRAINEES ENROLLED IN SENA, BY YOUTHS AND ADULTS, 1958-1964

Regional Sections	Total		Industry		Commerce and services		Agriculture	
	Youths	Adults	Youths	Adults	Youths	Adults	Youths	Adults
Antioquia	3 715	22 033	3 147	7 383	568	13 691	-	959
Atlántico	1 236	2 332	948	799	288	1 384	-	149
Bolívar	430	1 288	379	512	51	540	-	236
Boyacá	498	1 574	498	1 027	-	456	-	91
Caldas	918	4 087	723	1 359	-	1 536	195	1 192
Cauca	26	373	-	34	-	130	26	209
Córdoba	-	301	-	15	-	129	-	157
Cundinamarca	4 409	27 945	2 481	15 727	1 840	11 768	88	450
Chocó	197	473	167	355	30	118	-	-
Huila	-	311	-	-	-	69	-	242
Magdalena	327	1 570	-	193	167	1 027	160	350
Meta	-	114	-	17	-	17	-	80
Nariño	-	158	-	-	-	-	-	158
Norte Santander	153	860	153	290	-	417	-	153
Santander	207	2 331	173	899	34	1 154	-	278
Tolima	158	1 291	-	110	158	679	-	502
Valle	2 439	17 604	1 836	4 090	553	10 512	50	3 002
Dirección Nacional	-	1 711	-	1 212	-	275	-	224
Subtotal	14 713	86 356	10 505	34 022	3 689	43 902	519	8 432
Total	101 069		44 527		47 591		8 951	
Percentage	100.0		44.0		47.1		8.9	

Source: Sección Estadística of SENA.

The Institute's main duties are to:

(a) Undertake studies, research and work of a technological nature in all phases of agriculture and industry;

(b) Encourage the application of research results in order to improve processes and output in existing industries;

(c) Train technical personnel to serve in industry under the Institute's auspices or independently.

IIT is financed from the contracts under which it operates and from transfer payments. The former income comes from the sale of services to the industrial and other sectors, the latter from sponsors, donations, international programmes, etc.

Besides the above functions, IIT carries out certain international programmes among which is technical assistance to small industry in conjunction with the United Nations, and which concerns mainly the food industry, metal-transforming, chemicals and agriculture. The programme's objectives are to:

- Offer technical assistance to develop efficient operating methods leading to a better use of raw materials and equipment.
- Help in setting up adequate quality control systems to obtain uniform and satisfactory products in each sector.
- Open possibilities for the development of new products according to market needs, existing raw materials and domestic capital and manpower.
- Disseminate information, both printed and visual, regarding the use of proper techniques, especially in fields where knowledge is lacking.
- Aid private or public bodies managing industrial development to obtain higher productivity.
- Co-ordinate investment in small or medium industry with the industrial development agencies or with the public or private credit organizations.
- Train the technical personnel needed to maintain an adequate level of research according to the needs of each industrial sector.

Under another such programme the Government of Denmark is rendering valuable technical assistance to the ceramic industry.

The Institute has undertaken a variety of studies and research in industry and other sectors of the economy.

/8. Standardization

8. Standardization

The Colombian Institute of Technical Standards (Instituto Colombiano de Normas Técnicas - ICONTEC), established in 1964, is a private body which advises the Government in its own field. Its principal aims are to set up technical standards which will improve the quality of products; set up operating standards by which the efficiency of machines, apparatus and mechanisms can be measured; help to improve and co-ordinate existing laboratories and set up new ones, and share in the task of quality control.

The National Commission on Technical Standards (Comisión Nacional de Normas Técnicas), made up of representatives from various Ministries and from ICONTEC, recommends to legalize the technical standards worked out and adopted by ICONTEC.

/Chapter VI

Chapter VI

FOREIGN AID TO ECONOMIC DEVELOPMENT

The Institute of Technological Research (IIT) renders technical assistance to industry, enabling it to apply technological advances suitable to the country's situation. Contracts are made for advisory council including studies of feasibility, production processes, utilization of equipment and determination of the flexibility of installations, costs, markets, production planning, etc. IIT has under way a programme for medium and small industry, concerned mainly with organization, which is aided by the United Nations Special Fund and has the co-operation of their experts. Improvements have been spurred in such industries as foods, leather and earthenware.

The Colombian Institute of Administration (Instituto Colombiano de Administración - INCOLDA) is a private non-profit educational organization which gathers, selects, disseminates and studies the principles and techniques of scientific business administration. It offers training courses and organizes, guides and promotes seminars, conferences and round-table discussions. In its work, INCOLDA has been aided by the United States and other governments.

SENA, with technical assistance from CIME, soon hopes to extend vocational training to independent workers or to those who might form co-operative ventures in small or artisan industries. A Latin American centre for the operation, use and repair of agricultural machinery is being organized with the co-operation of FAO and the Massey Ferguson Company. Altogether, SENA has signed 24 multilateral and bilateral agreements for technical co-operation with the United Nations Special Fund, OIT, FAO, CIME and with such countries as Germany, Spain, France, the United Kingdom and Italy.

The Private Investment Fund (FIP) has received funds from the Alliance for Progress, the Inter-American Development Bank and from some European governments.

Of the five financial corporations in Colombia, three have received foreign loans from the International Finance Corporation.

Colombia has no plan to evaluate needs for foreign technical assistance. Requests originate with the agencies or sectors concerned and are considered by the Administrative Planning Department, through which applications are made.

1. Technical assistance

Technical assistance is generally bilateral and usually consists in sending experts in specific industrial fields and granting scholarships for special studies in the donor country.

The following technical assistance was received in 1966:

Belgium - 2 industrial training scholarships
Denmark - 1 ceramics expert co-operating with IIT
- A number of scholarships for research in dairy products and prefabricated building

Spain - 2 scholarships in food technology

United States - 1 expert on industrial methods
- 1 expert in industrial engineering
- 2 experts in industrial training
- 17 industrial development scholarships

France - 2 experts in machines, advisers to SENA
- 4 experts in electricity, advisers to SENA
- Experts in industrial electronics (under study)
- Experts in fishing (under study)
- 13 scholarships in electricity
- 1 scholarship in building
- 1 scholarship in fats and oils

Israel - Experts made a study for small industries in a district of Bogotá

Netherlands - Industrial development scholarships

United Kingdom - 1 expert in casting is working with SENA
- 1 expert in the cotton textile industry is working with SENA
- 6 industrial engineering scholarships
- 1 iron and steel industry scholarship

Federal German Republic - 1 expert on casting, with SENA
- 5 industrial engineering scholarships

Sweden - 1 electronics scholarship

Switzerland - 1 expert in clock and watch-making works with SENA

Besides such assistance, aid has been received from the following organizations:

OEA - 1 scholarship for study in industrial technology

Ford Foundation- Industrial administration programme for university graduates, including cost of instructors, experts, equipment and books

CIME - Sending of qualified personnel from Europe to work in the branches of food manufactures, wood and leather technology, metallurgy, textiles and garment manufacture; 75 persons were sent in 1965 and 1966

AID - Technical assistance supplied by AID personnel to the Colombian Exporter's Association (Asociación Colombiana de Exportadores - ACODEX), the Private Development Committee (Comité Privado de Desarrollo) and to ICONTEC.

2. Financial assistance

Most external financial assistance to industry is multilateral.

The United Nations, through the Special Fund, has given some 559 thousand dollars in support of the Institute of Technological Research. Through FAO, 1.77 million dollars have been devoted to the development of fishing. In 1966, the United Nations Regular Programme provided 160 thousand dollars for milk preservation.

Up until 30 June 1966, the Inter-American Development Bank had made five industrial loans to Colombia amounting to 21.9 million dollars.

The International Bank of Reconstruction and Development in recent years granted four industrial loans amounting to 16.4 million dollars, while the International Financial Corporation, a dependent organization, loaned the Industria Alimenticia Noel the sum of one million dollars as well as subscribing 17,500 dollars in shares. Besides making purchase committments

/and underwriting

and underwriting IFI bond issues, the Corporation granted loans of capital stock at cost to about ten industries to a total amount of 6.4 million dollars.

Most bilateral financial aid came from the United States. Between 1962 and 1966, AID loaned about 219 thousand dollars to industry and by means of public law N° 480, granted 22 loans (between 1962 and 1965) to various industries, to the amount of 43.6 million pesos.

/STATISTICAL ANNEX

STATISTICAL ANNEX

Table A.1

COLOMBIA: INPUTS FOR MANUFACTURING INDUSTRY

(Millions of pesos at current prices)

Industrial group	1958		1959		1960		1961		1962		1963	
	Total domestic and foreign	Foreign	Total domestic and foreign	Foreign	Total domestic and foreign	Foreign	Total domestic and foreign	Foreign	Total domestic and foreign	Foreign	Total domestic and foreign	Foreign
20 Foods	2 153	275	2 372	276	2 537	305	2 621	317	2 915	388	3 505	346
21 Beverages	330	85	364	90	411	60	445	49	476	39	618	41
22 Tobacco	69	14	79	18	87	19	97	21	104	22	151	25
23 Textiles	733	254	992	222	1 064	195	1 199	208	1 298	181	1 566	212
24 Wearing apparel (including footwear)	322	21	368	17	394	15	434	14	510	15	608	17
25 Wood except furniture	58	4	61	5	71	5	67	4	81	4	103	6
26 Furniture made from wood	29	3	32	2	35	2	39	2	45	1	51	1
27 Paper and paper products	93	56	112	60	138	74	180	88	255	102	363	130
28 Printing and allied industries	89	77	98	84	119	99	169	118	167	106	220	114
29 Leather except footwear	90	17	123	18	114	16	125	15	141	19	161	16
30 Rubber and rubber products	109	84	112	84	135	102	150	104	180	127	245	177
31 Chemicals	346	206	384	227	428	246	478	268	572	313	822	432
32 Products of petroleum and coal	381	11	398	15	454	26	511	43	530	43	691	27
33 Non-metallic minerals	105	26	143	37	170	44	200	49	254	56	415	68
34 Basic metals	229	34	272	23	387	44	458	46	511	45	510	52
35 Metal products except machinery	133	85	171	99	207	110	246	129	309	160	425	192
36 Non-electrical machinery	23	15	32	18	38	20	44	22	62	29	76	32
37 Electrical machinery and apparatus	81	65	111	81	154	121	193	144	237	165	293	191
38 Transport equipment	76	58	95	67	103	69	110	64	156	103	203	121
39 Miscellaneous industries	56	39	82	47	105	67	110	74	128	81	162	92
Total	5 505	1 429	6 402	1 490	7 151	1 639	7 875	1 778	8 931	1 999	11 188	2 292

Source: DANE.

Table A.2

COLOMBIA: IMPORTS OF INTERMEDIATE GOODS AND RAW MATERIALS FOR INDUSTRY

(c.i.f. value in millions of dollars)

Industrial group	1959	1960	1961	1962	1963	1964
Foods	31.3	26.6	27.1	30.3	19.4	31.6
Beverages	7.2	3.7	3.2	1.4	1.5	3.1
Tobacco	1.0	0.8	1.1	1.1	1.4	0.9
Textiles	18.0	15.2	16.1	12.3	13.7	15.7
Footwear and clothing	0.7	0.6	0.4	0.8	0.4	0.4
Wood, cork, and furniture made from wood	0.4	0.4	0.4	0.5	0.8	1.0
Paper and paper products	15.0	16.7	17.4	13.7	11.5	10.9
Printing, publishing and allied industries	5.6	7.7	7.9	10.3	7.9	8.4
Leather	1.0	0.8	0.8	0.7	1.0	0.9
Rubber	8.2	14.7	10.1	14.1	14.8	12.8
Chemicals	48.2	54.8	58.2	62.4	75.5	81.9
Products of petroleum and coal a/	2.1	3.2	4.5	5.1	2.3	2.6
Non-metallic minerals	3.1	3.0	4.2	4.5	5.1	3.1
Basic metals	3.9	4.5	4.4	5.3	8.2	11.9
Metal-transforming and metallurgy a/	55.1	68.6	75.2	79.5	70.0	88.1
Miscellaneous	1.0	1.0	1.1	1.1	1.1	1.3
Total	201.8	222.3	232.1	243.1	234.6	274.6

Source: Anuarios de Comercio Exterior. DANE. Prepared by Planeación (Programación Global).

a/ The figures for the petroleum and coal products industries, together with intermediate goods for the assembly industry, are subject to revision.

Table A.3

COLOMBIA: IMPORTS OF MANUFACTURED PRODUCTS BY INDUSTRIAL GROUPS

(c.i.f. value in millions of dollars)

Year	Industry of origin			Group "B" as percentage of total
	A [a]	B [b]	Total	
1957	29.3	391.1	420.4	93.0
1958	22.5	322.0	344.5	93.5
1959	29.7	343.7	373.4	92.0
1960	35.8	457.6	493.4	92.7
1961	37.4	484.0	521.4	92.8
1962	27.1	474.8	501.9	94.6
1963	28.0	449.8	477.8	94.1
1964	18.0	451.3	469.3	96.2

Source: Table 8.

[a] Includes foods, beverages, textiles, footwear and clothing, printing and tobacco.

[b] Comprises wood, paper, leather, rubber, chemicals, petroleum products, non-metallic mineral products, basic metals and metal-transforming.

Table A.4

COLOMBIA: IMPORTED MANUFACTURES FOR CONSUMER GOODS INDUSTRIES

(c.i.f. value in millions of dollars)

Industry of origin	1957	1958	1959	1960	1961	1962	1963	1964 a/
Foods	7.8	7.4	6.2	4.9	9.1 b/	1.7	1.3	1.1
Beverages	7.2	5.8	5.8	4.9	3.7	2.4	2.3	1.0
Tobacco	0.7	1.7	1.3	1.4	1.6	1.1	0.7	0.2
Textiles	12.5	6.2	13.7	19.8	19.1 c/	17.4 c/	18.6 c/	13.4 c/
Footwear and clothing	0.4	0.4	2.1	3.8	2.7	3.2	3.9	1.3
Printing	0.7	1.0	0.6	1.0	1.2	1.3	1.2	1.0
Total	29.3	22.5	29.7	35.8	37.4	27.1	28.0	18.0

Source: DANE, Anuarios de Comercio Exterior.

a/ Includes only most important imports.

b/ Includes 5.5 million dollars in husked rice.

c/ Imports of combed wool and yarns were 12.7 million dollars in 1961, 9.2 million in 1962, 8.2 million in 1963 and 10.5 million in 1964.

Table A.5

COLOMBIA: IMPORTED MANUFACTURES FOR INTERMEDIATE AND CAPITAL GOODS INDUSTRIES

(c.i.f. value in millions of dollars)

Industry of origin	1957	1958	1959	1960	1961	1962	1963	1964
Wood, cork and furniture made from wood	2.4	1.9	2.0	1.8	1.8	1.1	0.9	0.7
Pulp and paper	24.5	19.3	21.4	25.2	26.3	25.0	20.8	18.8
Leather	0.5	0.2	0.5	0.4	0.3	0.2	0.3	-
Rubber	3.6	4.2	8.4	13.3	9.9	12.4	12.9	14.4
Chemicals	89.9	77.0	80.4	94.0	98.8	104.7	109.1	97.9
Products of petroleum and coal	25.9	12.4	11.5	13.5	16.3	16.7	12.7	11.1
Non-metallic mineral products a/	9.6	7.5	7.1	7.8	7.9	8.4	7.3	5.7
Basic metals	57.1	36.0	36.0	50.4	47.2	45.0	48.4	48.9
Metal-transforming and metallurgy	164.1	153.3	168.9	241.9	265.2	249.8	228.7	245.4
Miscellaneous	13.5	10.2	7.5	9.3	10.3	11.5	8.7	8.4
Total	391.1	322.0	343.7	457.6	484.0	474.8	449.8	451.3

Source: DANE, *Anuario de Comercio Exterior*.

a/ Includes processed natural bentonite and calcined or ground asbestos.

Table A.6

COLOMBIA: MAJOR EXPORTS OF MANUFACTURES [a]

(f.o.b. value in thousands of dollars)

	1962	1963	1964
Sugar	7 381.7	5 479.8	3 270.7
Coffee extracts	199.7	110.7	132.4
Artificial silk and cotton yarns and threads	2 898.5	2 577.8	3 880.4
Cotton cloths	1 596.2	1 856.3	4 389.8
Wood (excluding furniture)	2 229.6	2 817.7	4 460.1
Hides and rawhides	1 738.5	1 970.1	3 093.5
Furs	410.5	631.8	764.0
Leather and fur products	52.3	100.9	471.6
Cement	1 997.1	1 558.7	2 314.8
Pharmaceutical products	899.7	944.8	2 691.8
Naphthenic acid	137.5	304.3	286.9
Balsams, miscellaneous	198.9	193.0	113.2
Fuel oil	7 130.6	3 775.2	7 309.2
Platinum	1 030.4	1 599.4	1 538.6
Machinery (including grain mills, sugar mills and coffee hullers)	648.7	706.9	882.7
Metal products (for household use)	157.0	77.8	295.6
Total	28 706.9	24 705.2	35 895.3

Source: Bulletins of DANE, JOT.

[a] Does not include unregistered exports.

Table A.7

COLOMBIA: UNREGISTERED EXPORTS

(Millions of dollars)

Product	1957	1958	1959	1960	1961	1962	1963	1964
Coffee	19.0	11.0	14.0	10.0	10.0	5.0	10.0	-
Cattle	7.0	14.0	14.0	10.0	10.0	5.0	10.0	-
Textiles a/	53.0	41.0	41.0	35.0	15.0	15.0	5.0	-
Total	79.0	66.0	69.0	55.0	35.0	25.0	25.0	15.0
Textiles as percentage of total	67.0	62.0	59.0	64.0	43.0	60.0	20.0	-

Source: Tentative estimates from various sources, DAP.

a/ Also includes certain made-up goods, footwear and various other products.

Table A.8

COLOMBIA: DISTRIBUTION OF GROSS PROFITS FOR FOREIGN AND DOMESTIC CORPORATIONS, 1955-1963

(Percentages)

	1955	1956	1957	1958	1959	1960	1961	1962	1963
Number of corporations	(500)	(538)	(558)	(586)	(850)	(920)	(987)	(1 061)	(1 158)
Total gross profits (A+B)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
A - Reserves, provisions	69.7	46.7	46.4	58.5	44.7	49.7	52.5	47.8	52.4
B - Net profits	30.3	53.3	53.6	41.5	55.3	50.3	47.5	52.2	47.6

Source: DAP, with data from the report of the Inspectorate of Corporations (Superintendencia de Sociedades Anónimas).

Table A.9

COLOMBIA: DISTRIBUTION OF NET CORPORATION PROFITS

(Percentages)

	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Number of corporations	(480)	(478)	(436)	(425)	(468)	(473)	(483)	(531)	(421)	(545)	(676)
Net profits (millions of pesos)	(209)	(256)	(312)	(337)	(507)	(486)	(646)	(757)	(716)	(1 005)	(1 318)
Total net profits (A+B)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
A - Undistributed profits (1-11)	37.8	42.5	48.8	46.4	54.2	53.8	54.8	58.1	56.3	58.1	62.2
1. For cancellation of losses, in advance or not	0.5	0.8	0.3	0.4	2.1	1.3	0.6	1.1	2.7	2.1	1.6
2. For legal reserve	7.1	6.3	6.7	6.6	7.5	5.6	5.5	5.6	7.0	5.7	7.6
3. For statutory reserves	0.9	0.4	0.1	0.4	0.6	0.3	0.1	0.1	0.1	0.4	0.2
4. For additional protection											0.8
5. For special reserves	7.9	9.8	14.6	13.6	8.9	9.4	13.5	17.9	6.5	8.2	9.8
6. For repurchase of preferred stock	0.3		0.9	0.1	0.1			0.1	0.3	0.5	0.5
7. For general administration					3.7	3.0	6.2	5.2	4.2	8.4	7.9
8. For board of directors	13.1	15.2	18.2	15.6	22.5	25.5	19.3	19.2	28.5	7.0	12.5
9. Protection and recovery of assets										7.6	5.9
10. Economic development										2.6	2.8
11. Future allocations	8.0	9.8	9.0	9.9	8.8	8.8	9.4	8.9	7.1	15.4	12.5
B - Distributed profits (1-3)	62.2	57.5	51.2	53.6	45.8	46.2	45.2	41.9	43.7	41.9	37.8
1. Ordinary dividend	56.8	52.0	44.0	46.5	40.5	40.3	42.1	39.3	39.4	39.0	34.1
2. Special dividend	5.4	5.5	7.2	7.1	5.1	5.5	2.7	2.2	3.5	2.4	3.2
3. Bonuses, welfare					0.2	0.4	0.4	0.4	0.8	0.5	0.5

Source: DAP, based on data from the Report of the Inspectorate of Corporations. Estado de Ganancias y Pérdidas. Síntesis General.

Table A.10

COLOMBIA: GROSS VALUE ADDED IN FACTORY INDUSTRY, BY DEPARTMENTS AND INDUSTRIES, 1963

(Percentages of total)

	Industrial group	Antioquia	Atlántico	Cundinamarca	Valle	Rest of country	Total
20	Foods	9.9	7.3	19.9	43.1	19.8	100.0
21	Beverages	13.8	10.1	32.8	9.8	33.5	100.0
22	Tobacco	29.0	8.7	24.5	6.3	31.5	100.0
23	Textiles	70.0	3.3	13.3	8.5	4.9	100.0
24	Wearing apparel	31.2	8.7	25.6	15.2	19.3	100.0
25/26	Wood, cork, and furniture made from wood	10.2	24.1	34.3	9.9	21.5	100.0
27	Paper and paper products	13.3	4.9	12.9	68.7	0.2	100.0
28	Printing, publishing and allied industries	18.2	3.2	49.2	21.7	7.7	100.0
29	Leather	40.2	5.5	34.4	9.5	10.4	100.0
30	Rubber	13.0	1.0	44.9	40.5	0.6	100.0
31	Chemicals	11.1	10.6	42.3	29.3	6.7	100.0
32	Products of petroleum and coal	1.3	-	3.4	-	95.3	100.0
33	Non-metallic minerals	23.4	9.5	44.7	11.1	11.3	100.0
34	Basic metals	8.1	0.5	15.1	0.1	76.2	100.0
35/38	Metal products	13.7	16.5	41.5	20.2	8.1	100.0
39	Miscellaneous	39.0	7.0	39.1	11.7	3.2	100.0

Source: DANE, prepared by DAP's Overall Economic Studies Division (Estudios Económicos Globales).